A3025-1U 12/87

1987

OPERATING PERFORMANCE REPORT

for the

PHCP Wholesale/Distribution Industry

PVF Distributing Industry

(Based on 1986 Financial Data)

Copyright © 1987

by

THE AMERICAN SUPPLY ASSOCIATION

All rights reserved. No part of this
report may be reproduced in whole or
part without written permission from

THE AMERICAN SUPPLY ASSOCIATION
20 North Wacker Drive, Suite 2260
Chicago, IL 60606

Esmond E. Fogle, President
Robert Stichweh, Chairman-Management Information Services Committee
Peter W. Schwartz, Executive Vice President

Professionally prepared by: **Industry Insights, Inc.**
1585 Bethel Road
Columbus, Ohio 43220
(614) 442-6626

For the fifth consecutive year, the ASA Annual Operating Performance Report was compiled, tabulated and analyzed by Industry Insights, Inc. in cooperation with the American Supply Association and key industry members.

Industry Insights, headquartered in Columbus, Ohio, is a professional research and consulting firm providing management and marketing services to trade and professional associations and their members. The company specializes in industry operating surveys, compensation studies, educational programs and customized research services.

(Additional copies of the report are available from the ASA office)
Just call (312) 236-4082

About This Report

This 1987 American Supply Association Operating Performance Report of the P-H-C-P Wholesale/ Distribution and P-V-F Distributing Industries (based on 1986 financial data) represents the most complete, accurate and up-to-date data base of full-service plumbing, heating, cooling and piping (P-H-C-P) products wholesaler financial and operating results published anywhere. The information contained in this report is designed to provide easy-to-understand guidelines for identifying business performance improvement opportunities.

For the fifth consecutive year, the Operating Performance Report (OPR) was prepared by Industry Insights, Inc. of Columbus, Ohio, working closely with the American Supply Association staff. Confidential survey forms (refer to the Appendix for a sample) were sent to ASA members in late February and 310 completed and usable responses were received, representing one of the largest data bases of respondents among any wholesale/distribution industry. This strong response represents nearly a 9% increase in participation as compared to the same study in 1986.

As in the past, this year's report includes comparative financial ratios and statistics by type of firm, sales volume size, high profit firms and geographic region. In addition, building upon the excellent historical information that has resulted from past ASA operating performance surveys, this year's study contains various six year industry trend data, along with appropriate analysis. Such information is important for identifying shifts occuring within the industry which may be representative of future conditions.

Also featured in this year's report is an overall analysis of industry performance relative to U.S. economic conditions, including both sales and profitability results. In addition, as in the past, a listing of fiscal year-ends is included.

Perhaps the most valuable feature of the ASA Operating Performance Report is that all firms participating in the survey received, absolutely free, a confidential Company Performance Report. This report presents a company's own ratios and data computed in a manner consistent with those appearing in the industry report, and displayed alongside the appropriate industry comparatives. (A couple representative pages from a sample Company Performance Report are illustrated on the following page.)

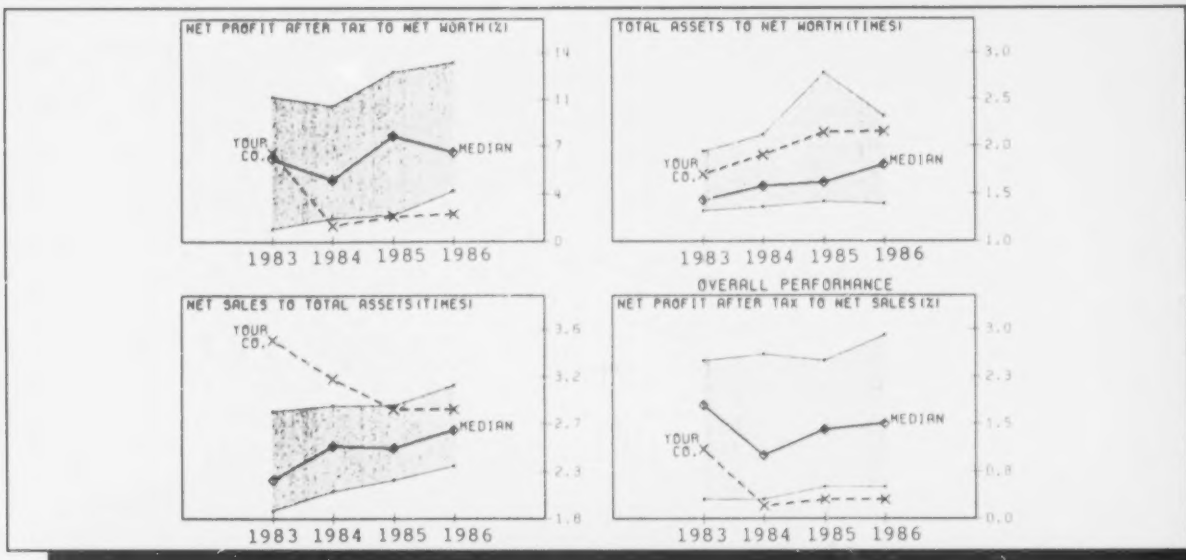
As shown on any given line of the Company Performance Report a firm's own data is included along with industry averages for firms of a comparative sales volume, type of business, geographic region, etc. Thus, the individual owner/manager is provided invaluable information without having to spend time and effort making the calculations manually. In addition, for any firm which participated in more than one consecutive ASA OPR study in recent years, the Company Performance Report includes multiple year trend data in graphical form. Also, for the first time ever, these highly confidential reports contain a computer-generated qualitative assessment of a company's situation, including some possible alternative courses of action.

SAMPLE

COMPANY PERFORMANCE REPORT

SUMMARY PERFORMANCE EVALUATION
Your Firm's Performance Compared to "All Similar Firms"

NET PROFIT AFTER TAX TO NET WORTH....(WEAK)
Return on net worth (RONW) is one overall measure of company profitability, expressing the percentage return earned on the owner's investment in the business.
Your firm's RONW was below the lower quartile performance level, suggesting that further investigation is warranted to determine where profit leaks are occuring. While you may conclude that no significant problems exist, suggested areas of review are asset turnover, profit margin, and financial leverage (the three basic components of RONW).



	Your Firm	HIGH PROFIT FIRMS		YOUR REGION	
		TYPICAL	MIDDLE RANGE	TYPICAL	MIDDLE RANGE
Overall Performance					
Net Profit After Tax to Net Worth	2.04%	10.20%	7.36 - 17.78%	5.88%	2.53 - 14.07%
Total Assets to Net Worth	2.15 TIMES	1.65x	1.34 - 1.96x	1.92x	1.37 - 2.76x
Net Profit After Tax to Total Assets	0.95%	7.56%	4.51 - 9.38%	3.57%	1.07 - 5.73%
Net Sales to Total Assets	2.84 TIMES	2.66x	2.30 - 3.33x	2.55x	2.10 - 2.93x
Net Profit After Tax to Net Sales	0.33%	2.40%	1.50 - 3.40%	1.30%	0.50 - 1.90%
Net Profit Before Tax to Net Worth	3.06%	19.14%	12.89 - 27.42%	9.19%	3.37 - 20.49%
Net Profit Before Tax to Total Assets	1.42%	12.52%	7.16 - 16.28%	4.52%	1.61 - 9.52%
EBIT to Total Assets	3.70%	14.00%	8.28 - 17.33%	7.11%	4.07 - 9.74%
Sales Analysis					
Net Sales($000)	$2,450	$9,840	$6,542 - 14,644	$5,029	$2,562 - 10,672
Percent Sales Change from Prior Year	7.40%	8.98%	2.42 - 23.34%	8.07%	1.10 - 15.61%
Sales Mix:					
Direct Sales	12.1%	9.0%	4.8 - 13.3%	11.1%	3.6 - 13.6%
Warehouse Sales - Counter and Delivery	87.9%	91.0%	86.7 - 95.2%	88.9%	86.4 - 96.4%
TOTAL SALES	100.0%	100.0%	100.0 - 100.0%	100.0%	100.0 - 100.0%
Product Sales Mix					
Plumbing Supplies & Equipment	30.0%	43.0%	40.0 - 50.0%	43.1%	30.0 - 65.0%
Heating & Cooling Supplies & Equipment	%	21.4%	10.0 - 30.0%	12.5%	0.0 - 21.8%
Industrial P-V-F (Pipes-Valves-Fittings)	30.0%	28.3%	15.0 - 40.0%	23.8%	3.1 - 37.5%
Other Industrial Supplies & Equipment	30.0%	2.3%	0.0 - 5.0%	5.4%	0.0 - 8.9%
Other Products	10.0%	5.0%	0.0 - 10.0%	15.2%	0.0 - 28.8%
TOTAL SALES	100.0%	100.0%	100.0 - 100.0%	100.0%	100.0 - 100.0%
Gross Margin					
Gross Margin on Net Sales	24.9%	24.7%	22.3 - 27.1%	25.2%	21.4 - 28.7%
Gross Margin on Direct Shipments	11.8%	13.8%	10.0 - 18.8%	11.6%	8.3 - 13.5%
Gross Margin on Warehouse Sales	26.7%	24.6%	23.4 - 28.1%	25.3%	23.3 - 29.6%
Asset and Financial Management					
Current Asset Turn (Sales/Current Assets)	3.17 TIMES	3.25x	2.88 - 3.59x	2.84x	2.43 - 3.49x
Total Debt to Net Worth	115.1%	64.8%	34.0 - 95.9%	86.9%	36.2 - 166.4%
Current Debt to Net Worth	81.1%	42.2%	28.9 - 82.7%	60.8%	30.7 - 109.8%

TABLE OF CONTENTS

ABOUT THIS REPORT. 1

P-H-C-P WHOLESALING -- OVERVIEW OF INDUSTRY PERFORMANCE-1986. . . 5

1986 Sales Performance. 5
1986 Profitability Performance 7

P-H-C-P WHOLESALING -- 1977-1986 9

HOW TO USE THIS REPORT 11

1987 ASA OPERATING PERFORMANCE SURVEY RESULTS. 15

Executive Summary of Survey Results 17

Plumbing Supplies & Equipment Firms -- All Reporting Firms 37
Plumbing Supplies & Equipment Firms -- Sales Under $3 Million 40
Plumbing Supplies & Equipment Firms -- Sales $3-$7 Million. 43
Plumbing Supplies & Equipment Firms -- Sales $7-$12 Million. 46
Plumbing Supplies & Equipment Firms -- Sales Over $12 Million 49
Plumbing Supplies & Equipment Firms -- High Profit Firms 52

Industrial P-V-F Firms -- All Reporting Firms. 57
Industrial P-V-F Firms -- Sales Under $4 Million. 60
Industrial P-V-F Firms -- Sales $4-$12 Million 63
Industrial P-V-F Firms -- Sales Over $12 Million. 66
Industrial P-V-F Firms -- High Profit Firms 69

Plumbing Supplies & Industrial P-V-F Firms --
All Reporting Firms 75
Plumbing Supplies & Industrial P-V-F Firms --
Sales Under $3 Million 78
Plumbing Supplies & Industrial P-V-F Firms --
Sales $3-$7 Million. 81
Plumbing Supplies & Industrial P-V-F Firms --
Sales Over $7 Million 84
Plumbing Supplies & Industrial P-V-F Firms --
High Profit Firms 87

HVAC & Other Firms -- All Reporting Firms. 93
HVAC & Other Firms -- Sales Under $3 Million. 96
HVAC & Other Firms -- Sales $3-$8 Million 99
HVAC & Other Firms -- Sales Over $8 Million. 102
HVAC & Other Firms -- High Profit Firms 105

All Reporting Firms. 111

TABLE OF CONTENTS

PHWNE (CT, ME, MA, NH, RI, VT) 117
NYSPHW (NY, Excluding New York City) 120
MAWA (DE, E. PA, MD, NJ, Wash. DC) 123
CWA (IN, OH, W. PA, WV) 126
SWA (AL, FL, GA, KY, MS, NC, SC, TN, VA) 129
MAD (Michigan, excluding Upper MI) 132
Metro Chicago, Northern IL 135
MASA (IA, KS, MN, MO, NE, ND, SD, Upper MI, WI, Southern IL) 138
WDA (LA, TX, NM, OK, AR, CO) 141
WSA (ID, MT, WY, AK, OR, WA, HI, Northern CA, Northern NV) 144
PSDA (AZ, Southern CA, Southern NV, UT) 147

APPENDIX 151

Survey Methodology/Demographics 153
Fiscal Year-Ends 155
Ratio Definitions & Sample Calculations 157
Sample ASA Survey Form 161
Expense Definitions 165

P-H-C-P Wholesaling--Overview of 1986 Industry Performance

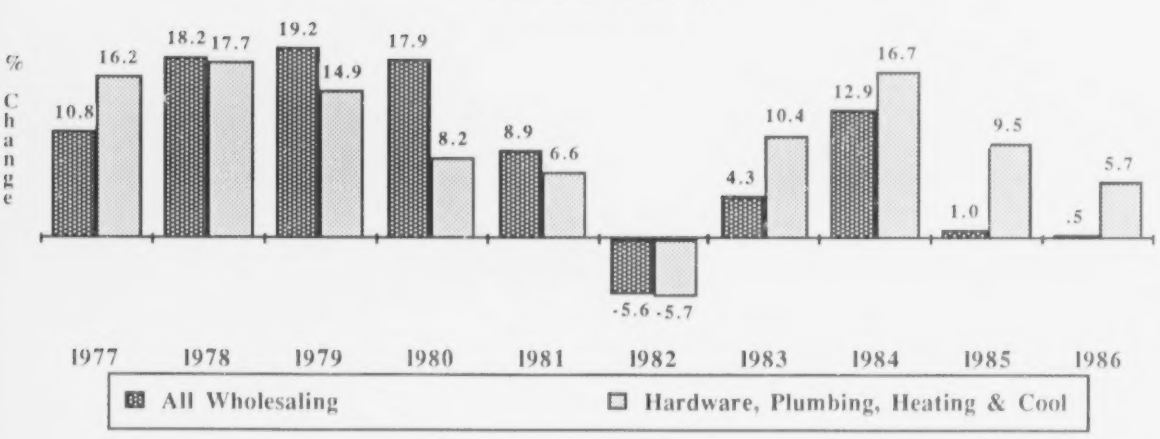
For the second consecutive year, the nation's economy in 1986 showed only a moderate gain over the prior year. Gross National Product (GNP), which is the most frequently cited measure of overall economic growth, grew only 2.5% (after adjusting for inflation). However, the year will best be remembered as one of low interest rates, low inflation (due largely to huge drops in the price of oil), and a highly stimulated construction industry (with housing starts over 1.8 million units, the highest in recent years).

1986 Sales Performance

Based on U.S. Census Bureau figures, wholesalers of hardware, plumbing, heating, air conditioning and refrigeration equipment experienced a 5.7% sales increase in 1986, down from the 9.5% gain recorded in 1985. For the fourth consecutive year, these wholesalers outpaced the sales growth of all merchant wholesalers as a group (5.7% vs. 0.5%) (as shown in Exhibit 1).

Exhibit 1

GROWTH OF HARDWARE, PLUMBING, HEATING & COOLING VS. ALL WHOLESALE SALES



In contrast to census figures, ASA members responding to this year's survey reported a "typical sales increase of 8.2% for 1986 over 1985 levels, down slightly from the growth experience of 1985. However, as shown in Exhibit 2, a wide range of variation existed among the four product emphasis segments in terms of the sales gains posted.

The most rapid sales growth was experienced by HVAC & Other Emphasis Firms, with a 10.9% 1986 advance. In contrast, the typical Industrial P-V-F company reported virtually no growth at all, and Industrial P-V-F Firms with sales less than $4 million, actually experienced a median sales decline of 6.3%.

Exhibit 2

1986 MEDIAN SALES GROWTH

ALL P-H-C-P WHOLESALERS	8.2%
BY PRODUCT EMPHASIS	
Plumbing Equipment and Supplies	9.4%
Industrial Pipes-Valves-Fittings (P-V-F)	0.1
Plumbing and Industrial P-V-F	8.3
HVAC and Other Emphasis	10.9
BY SALES VOLUME	
Plumbing Equipment & Supplies:	
Sales Less than $3 Million	8.0%
Sales $3 Million to $7 Million	7.9
Sales $7 Million to $12 Million	14.1
Sales Over $12 Million	10.9
Industrial P-V-F:	
Sales Less than $4 Million	-6.3%
Sales $4 Million to $12 Million	6.6
Sales Over $12 Million	1.0
Plumbing and Industrial P-V-F:	
Sales Less than $3 Million	15.2%
Sales $3 Million to $7 Million	8.2
Sales Over $7 Million	8.2
HVAC and Other Emphasis:	
Sales Less than $3 Million	11.7%
Sales $3 Million to $8 Million	10.8
Sales Over $8 Million	11.5

1986 Profitability Performance

Along with slower sales growth in 1986, the overall profitability of P-H-C-P wholesalers slipped somewhat as median return on net worth went from 8.8% in 1985 to 8.1% in 1986 (Exhibit 3). Among the four product emphasis groups, HVAC & Other Emphasis Firms reported the highest return on net worth (8.7%), while the group categorized as "Plumbing Supplies and Industrial P-V-F" Firms had the lowest profitability (6.4% return on net worth).

Exhibit 3

1986 MEDIAN RETURN ON NET WORTH

All P-H-C-P Wholesalers	**8.1%**
BY PRODUCT EMPHASIS	
Plumbing Equipment and Supplies	**8.2%**
Industrial Pipes-Valves-Fittings (P-V-F)	**7.1**
Plumbing and Industrial P-V-F	**6.4**
HVAC and Other Emphasis	**8.7**
BY SALES VOLUME	
Plumbing Equipment & Supplies:	
Sales Less than $3 Million	**8.3%**
Sales $3 Million to $7 Million	**8.7**
Sales $7 Million to $12 Million	**6.2**
Sales Over $12 Million	**9.5**
Industrial P-V-F:	
Sales Less than $4 Million	**7.2%**
Sales $4 Million to $12 Million	**9.4**
Sales Over $12 Million	**4.5**
Plumbing and Industrial P-V-F:	
Sales Less than $3 Million	**7.5%**
Sales $3 Million to $7 Million	**6.1**
Sales Over $7 Million	**7.5**
HVAC and Other Emphasis:	
Sales Less than $3 Million	**11.0%**
Sales $3 Million to $8 Million	**11.2**
Sales Over $8 Million	**6.8**

P-H-C-P Wholesaling (1977-1986)

Based on information provided by the U.S. Bureau of the Census, the compound annual sales growth of hardware, plumbing, heating and cooling wholesalers over the past ten years has been 9.1%. While this growth pace has exceeded that of all wholesale trade (8.3%), durable goods wholesalers in general have grown approximately 9.2% per year.

Exhibit 4

ANNUAL WHOLESALE SALES GROWTH (%)
1977 - 1986

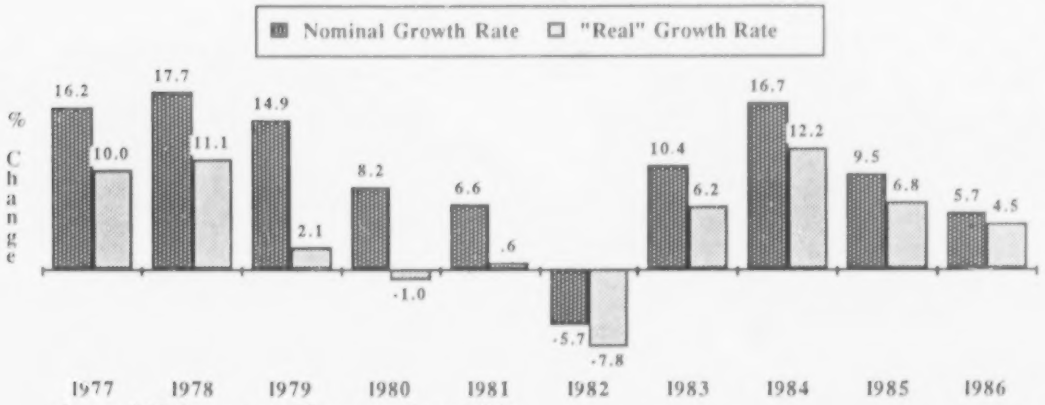
All Wholesale Trade	**8.3**
All Durables Wholesalers	**9.2**
Electrical Goods	**13.2**
Motor Vehicles & Automotive Equipment	**11.0**
Furniture & Home Furnishings	**10.1**
Machinery, Equipment & Suppliers	**7.9**
Hardware, Plumbing & Heating Equipment	**9.1**

Exhibits 5 and 6 below show the pattern of growth over the past ten years in the economy as a whole (as measured by "real GNP growth") as well as hardware, plumbing and heating wholesalers. When comparing numbers over a long period of time it is useful to remove the impact of inflation, which has varied considerably over the years. For example, as shown in Exhibit 5, in 1986, a year of low inflation, hardware, plumbing & heating wholesalers experienced a 5.7 sales increase, which translates into 4.5% after eliminating the effects of inflation. In contrast, during 1979, a year of high inflation, these firms experienced a 14.9% sales increase, but after considering the impact of inflation, only a 2.1% "real" expansion occurred.

Exhibit 5

GROWTH OF HARDWARE, PLUMBING, HEATING WHOLESALE SALES

(1977-1986)



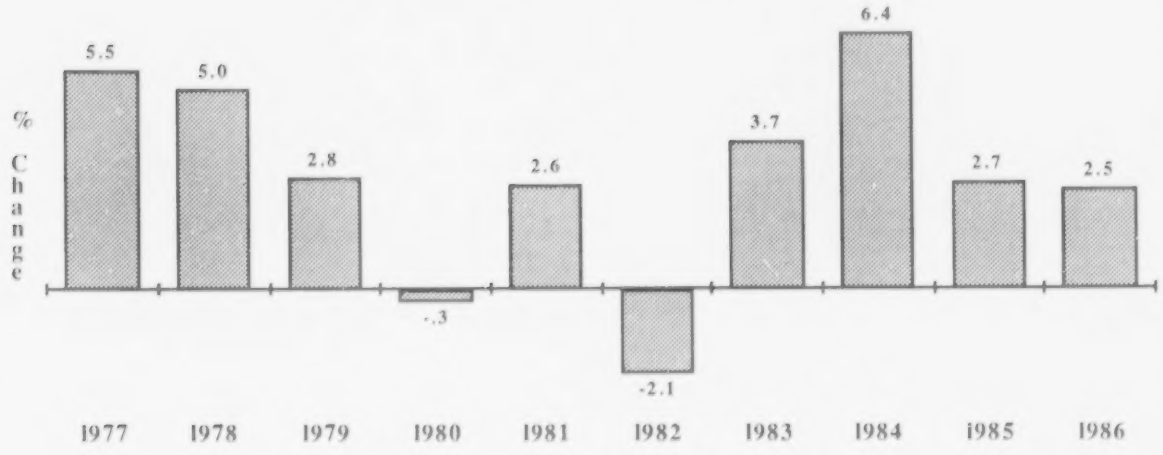
Source: U.S. Department of Commerce, Bureau of the Census

It is further interesting to note the close similarity between the two graphs shown in Exhibits 5 and 6. This clearly confirms that the annual sales performance of the hardware, plumbing and heating wholesaler business is closely aligned to economic growth in the overall economy. This in no way suggests, however, that any given company cannot perform exceptionally well, regardless of the economic climate.

Exhibit 6

GROSS NATIONAL PRODUCT

"Real" Percent Change

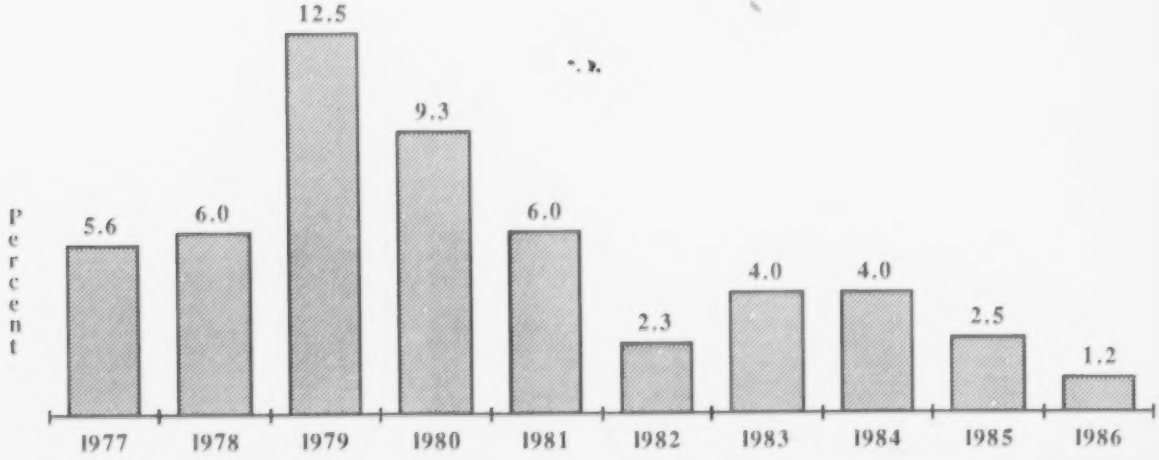


As shown in Exhibits 5 and 6, the years 1977, 1978, and 1984 were strong sales growth years for the economy in general and for hardware, plumbing and heating wholesalers in particular. Years showing negative "real" growth were 1980 and 1982.

Exhibit 7 below shows the historical inflation rate experienced by P-H-C-P wholesaler industry firms over the 1977-1986 period. According to the industry price index constructed by Alan Silver and Associates, inflation was a very low 1.2% in 1986, continuing a five-year span of moderate to low rates.

Exhibit 7

THE P-H-C-P WHOLESALER PRICE INDEX
(Percent)



Source: Alan Silver & Associates, Inc. and "The Wholesaler"

How to Use this Report

The 1987 ASA Operating Performance Report of the P-H-C-P Wholesaler/Distribution and P-V-F Distributing Industries has been designed to help wholesalers evaluate their own performance relative to that of similar companies in order to identify improvement opportunities. The statistics in this report represent broad performance "yardsticks" against which a company's performance can be measured.

Using this information P-H-C-P and P-V-C wholesalers can compare their own firm's financial and operating performance with the industry as a whole; with firms having the same areas of product emphasis; with firms of a comparable sales volume and/or geographic region; and with the highest profit firms. Spotting significant differences between your own firm's performance and the industry composites can be the first step toward improving performance. Keep in mind, however, that deviations from industry norms do not automatically call for some action on your part. The most important thing to do is to be able to explain why your firm experienced significant deviations from the "typical" wholesaler in the industry.

In order to obtain maximum advantage from the information contained in this report while at the same time minimizing your analysis time and effort, we recommend you follow the step-by-step approach outlined below.

Step 1: Collect the Necessary Company Data

The first step in using this report is to gather all your financial and operating results for your 1986 fiscal year. Most of the needed data can be obtained from your company accounting records, but a small amount will have to be extracted from other sources, such as personnel files, advertising records and the like. If you participated in the 1987 P-H-C-P Wholesaler Operating Performance Survey, this step has probably already been done.

Step 2: Calculate the Ratios

The second step is to compute all of the various performance measures for your firm that are included in this report using the data gathered in Step 1. It is extremely important to calculate these ratios using the same formulas which were used to produce the ratios in this report. These formulas, along with sample calculations of each measure, appear in the section of this report entitled, "Ratio Definitions and Sample Calculations," located in the Appendix.

Companies which participated in the survey and filled the survey form out completely received, **absolutely free**, a confidential Company Performance Report of their own firm's financial ratios calculated and formatted in a manner that is consistent with the information in this report. Thus, for those firms, Step 2 has already been completed for them in an accurate, time saving manner. P-H-C-P wholesalers that did not participate in the 1987 survey should strongly consider doing so in the future.

Step 3: Compare the Results

Next, compare your company's performance with the survey results of other firms in the industry. As you do so, several points should be recognized:

(1) A deviation between your firm's figures (for any performance measure) and numbers in the report is not necessarily good or bad. It merely indicates that additional analysis may be required. As a rule, the larger the difference, the greater the need for further investigation.

(2) In situations where large deviations do exist, it may be helpful to go back and calculate the same performance measure over the past several years to identify any trends that may exist.

(3) The information in this report should be used as tools for informed decision making rather than absolute standards. Since firms differ as to their product emphasis strategy, location, size, and other factors, any two firms can be successful, yet have very different experiences with regard to certain performance measures.

Understanding the Data

In order to use the information in this report to maximum advantage, it is important to understand *what the numbers mean* and *how to interpret them.*

How the Tables are Organized--The tables in this report are organized to include a number of important financial ratios for each relevant "grouping" of similar firms. In particular, the major "groupings" used include:

All Reporting Firms -- refers to the results of all firms responding to the survey

Product Emphasis Group:

-- Plumbing Supplies & Equipment Firms -- those firms that derive over 50% of sales from plumbing products

-- Industrial P-V-F Firms -- those firms that derive over 50% of sales from Industrial P-V-F products.

-- Plumbing Supplies & Equipment and Industrial P-F-V Firms -- those firms that derive more than 50% of sales from plumbing and industrial P-V-F products combined but less than 50% from either category alone.

--HVAC & Other Emphasis Firms -- those firms that cannot be classified in any of the above three groups; or those companies which derive less than 50% of sales from combined plumbing supplies and equipment, and industrial P-V-F.

Product Emphasis Group by Sales Volume Size:

-- Plumbing Supplies and Equipment Firms with Sales Under $3 Million
-- Plumbing Supplies and Equipment Firms with Sales $3 - $7 Million
-- Plumbing Supplies and Equipment Firms with Sales $7 - $12 Million
-- Plumbing Supplies and Equipment Firms with Sales Over $12 Million

-- Industrial P-V-F Firms with Sales Under $4 Million
-- Industrial P-V-F Firms with Sales $4 - $12 Million
-- Industrial P-V-F Firms with Sales Over $12 Million

-- Plumbing Supplies & Equipment and Industrial P-V-F Firms with Sales Under $3 Million
-- Plumbing Supplies & Equipment and Industrial P-V-F Firms with Sales $3 - $7 Million
-- Plumbing Supplies & Equipment and Industrial P-V-F Firms with Sales Over $7 Million

-- HVAC & Other Emphasis Firms with Sales Under $3 Million
-- HVAC & Other Emphasis Firms with Sales $3 - $8 Million
-- HVAC & Other Emphasis Firms with Sales Over $8 Million

By Regional Association Affiliation:

-- PHWNE (CT, ME, MA, NH, RI, VT)
-- NYSPHW (NY, excluding New York City)
-- JCA (Long Island and Metro NY)
-- MAWA (DE, E. PA, MD, NJ, Wa. DC)
-- CWA (IN, OH, W. PA, WV)
-- SWA (AL, FL, GA, KY, MS, NC, SC, TN, VA)
-- MAD (Michigan, excluding Upper MI)
-- Metro Chicago, Northern IL
-- MASA (IA, KS, MN, MO, NE, ND, SD, UPPER MI, WI, Southern IL)
-- WDA (LA, TX, NM, OK, AR, CO)
-- WSA (ID, MT, WY, AK, OR, WA, HI, Northern CA, Northern Nevada)
-- PSDA (AZ, Southern CA, Southern NV, UT)

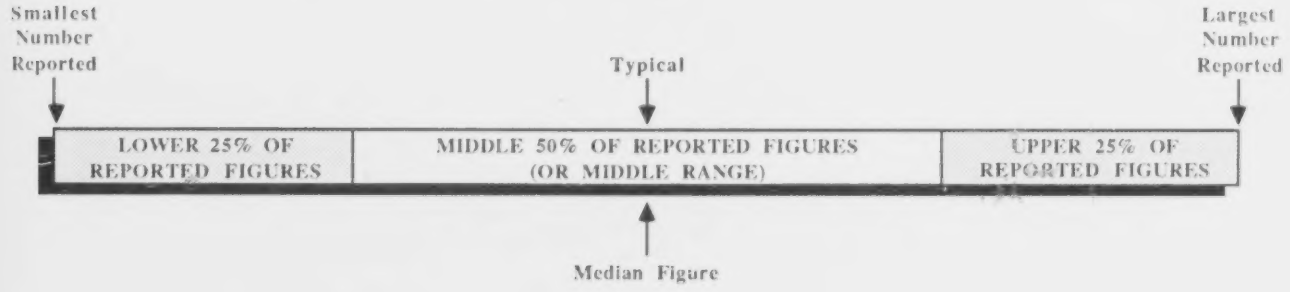
By Product Emphasis Group by High Profit Firms (refers to the upper quartile performers based on Before Tax Return on Assets):

-- High Profit Plumbing Supplies & Equipment Firms
-- High Profit Industrial P-V-F Firms
-- High Profit Plumbing Supplies & Equipment and Industrial P-V-F Firms
-- High Profit HVAC & Other Emphasis Firms

Interpreting the Numbers

Most of the performance indicators included in this study are reported on the basis of medians rather than arithmetical averages or means. Unlike the mean, the median is not distorted by a few unusually high or low values that may exist in the sample due to special circumstances. The "median" figure represents the mid-point of the figures for a particular measure, with one-half of the firms reporting figures above it and one-half below. Each median was computed independently based on the companies which reported for that item. As a result, relationships do not always exist when different ratios are used together in the calculation. For example, the median net sales minus the median cost of goods sold may not necessarily equal the median gross margin percent.

Also included for most of the performance indicators is the "Middle Range." This represents the experience of the middle 50 percent of all firms in the data grouping when items are arranged numerically from lowest to highest. In other words, the upper and lower limits on the "Middle Range" are simply the upper and lower quartiles respectively for that ratio.



Figures reported by responding members were not used unless they were in accordance with the survey instructions and definitions. In cases where the number of companies reporting was considered inadequate for the computation of a meaningful figure, blank spaces appear in the tables.

Further insights into how to use this report are included in the Appendix in the section entitled: "Ratio Definitions and Sample Calculations." An important point to keep in mind when using this report is that even relatively simple analysis of your company's own financials using the industry data for comparison can yield important insights into your business. You do not have to be a financial expert to benefit from this information.

1987 ASA OPERATING

PERFORMANCE SURVEY

DETAILED RESULTS

EXECUTIVE SUMMARY OF SURVEY RESULTS

This 1987 ASA Operating Performance Report (for the PHCP Wholesale/Distribution and PVF Distributing Industries) is organized as a detailed set of easily referenced industry performance tables (provided on pages 35 to 149 of this report). These are divided into four primary sections corresponding to the major product emphasis groups in the industry, including:

(1) Plumbing Supplies and Equipment Firms
(2) Industrial P-V-F Firms
(3) Plumbing Supplies and Industrial P-V-F- Firms
(4) HVAC and Other Emphasis Firms

P-H-C-P wholesalers using this study should refer to the section which most closely corresponds to their own firm's operation. This detailed information should be kept handy and referenced from time-to-time to help in better controlling operations.

While the comprehensive tables included in this report are designed to serve as an ongoing reference tool, important insights can be learned about the overall industry operating performance experienced in 1986. Even more importantly, the industry performance results for 1986 can be compared to that which was achieved in prior years in order to identify any trends that may have occurred. This is useful for understanding not only where the industry has been, but also for anticipating the future direction of the P-H-C-P wholesale/distribution business.

Some highlights of this year's survey results are provided below as well as insights regarding key patterns of change during the 1981-86 period.

Six-Year (1981-1986) Performance Comparison--Key Performance Measures

The series of summary tables shown on the next several pages have been abstracted from the comprehensive set of complete statistics. These data represents good overall guages of P-H-C-P wholesaler performance in the key areas of productivity, financial management, control of accounts receivable, expense and profit trends, and sales performance.

Productivity Management--Each year's Operating Performance Report confirms that a key determinant of profitability among industry firms is the effectiveness and efficiency with which the company operates. Invariably, companies that are the most productive are also the most profitable, regardless of company size, type of product emphasis, geographic area, economic climate, and/or most other factors.

Throughout the years, the particular areas of productivity management that tend to be most critical for company success are inventory and personnel. Payroll costs alone represent over half of total operating expenses for the typical industry firm, while inventory investment is, by far, the largest asset investment item (representing nearly 50% of total assets).

Based on the six-year industry-wide ASA survey results shown on the next several pages, a number of observations are noteworthy:

- Payroll and fringe benefits expense as a percentage of sales has shown a gradual, but steady decline among all P-H-C-P wholesalers except Industrial P-V-F Firms. In the aggregate, payroll costs as a percentage of sales in 1986 declined for the fourth consecutive year, going from 14.5% in 1982 to 13.3% in the most recent twelve month period. This pattern was true of Plumbing Supply and Equipment Firms as well as HVAC and Other Emphasis Firms. However, the opposite

Exhibit 8

PLUMBING SUPPLIES & EQUIPMENT FIRMS

SIX-YEAR SUMMARY PERFORMANCE COMPARISON
1981-1986

	1986	1985	1984	1983	1982	1981
Financial Management						
Total Debt to Net Worth	106.9%	92.8%	90.7%	85.8%	68.9%	78.1%
Current Assets Minus Inventory to Current Debt	1.1x	1.0x	1.0x	1.0x	1.3x	1.1x
Personnel Productivity						
Net Sales/Employee	$196,208	$195,342	$189,182	$171,166	$158,548	$162,470
Payroll and Fringe Benefits to Net Sales	13.1%	13.2%	13.5%	13.7%	14.1%	13.8%
Inventory Management						
Gross Margin on Net Sales	24.1%	24.3%	24.3%	24.3%	25.0%	24.4%
Cost of Warehouse Goods Sold to Average Inventory	3.9x	3.7x	3.8x	3.7x	3.3x	3.5
Total Cost of Goods Sold to Average Inventory	4.1x	4.0x	4.2x	4.1x	3.7x	4.2x
Warehouse Gross Margin Return on Inventory	124%	118%	126%	124%	113%	127%
Accounts Receivable						
Average Collection Period (Days)	48	48	49	50	50	44
Expense Management						
Total Operating Expenses as a Percent of Sales	22.3%	21.4%	21.3%	21.8%	22.7%	21.6%
Sales Performance						
Percent Sales Change from Prior Year	9.4%	9.8%	14.7%	18.1%	-3.1%	0.5%

Exhibit 9

INDUSTRIAL P-V-F FIRMS

SIX-YEAR SUMMARY PERFORMANCE COMPARISON
1981-1986

	1986	1985	1984	1983	1982	1981
Financial Management						
Total Debt to Net Worth	80.7%	84.1%	74.4%	83.9%	83.3%	64.2%
Current Assets Minus Inventory to Current Debt	1.2x	1.0x	1.1x	1.1x	1.2x	1.0x
Personnel Productivity						
Net Sales per Employee	$205,236	$218,040	$197,975	$196,923	$201,377	$198,150
Payroll and Fringe Benefits to Net Sales	14.6%	15.9%	14.4%	14.1%	13.9%	12.9%
Inventory Management						
Gross Margin on Sales	27.4%	27.1%	25.7%	24.4%	23.4%	25.1%
Cost of Warehouse Goods Sold to Average Inventory	3.3x	3.3x	3.2x	3.1x	2.7x	3.0x
Total Cost of Goods Sold to Average Inventory	4.2x	4.1x	4.2x	3.6x	3.7x	3.4x
Warehouse Gross Margin Return on Inventory	127%	127%	121%	109%	95%	111%
Accounts Receivable						
Average Collection Period (Days)	43	43	48	51	40	40
Expense Management						
Total Operating Expenses as a Percent of Sales	25.3%	23.1%	22.2%	23.6%	22.0%	20.6%
Sales Performance						
Percent Sales Change from Prior Year	0.1%	9.5%	20.1%	-6.8%	-11.7%	3.6%

Exhibit 10

PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

SIX-YEAR SUMMARY PERFORMANCE COMPARISON 1981-1986

	1986	1985	1984	1983	1982	1981
Financial Management						
Total Debt to Net Worth	73.4%	79.9%	61.7%	56.7%	42.5%	52.3%
Current Assets Minus Inventory to Current Debt	1.1x	1.2x	1.3x	1.4x	1.5x	1.4x
Personnel Productivity						
Net Sales per Employee	$189,599	$191,710	$191,422	$167,513	$152,807	$157,900
Payroll and Fringe Benefits to Net Sales	14.9%	14.2%	13.7%	14.3%	15.3%	14.2%
Inventory Management						
Gross Margin on Sales	25.9%	24.8%	23.7%	24.1%	25.2%	24.5%
Cost of Warehouse Goods Sold to Average Inventory	3.7x	3.7x	3.4x	3.4x	2.8x	3.1x
Total Cost of Goods Sold to Average Inventory	4.4x	4.5x	4.1x	4.0x	3.6x	3.9x
Warehouse Gross Margin Return on Inventory	130%	127%	111%	108%	106%	114%
Accounts Receivable						
Average Collection Period (Days)	54	51	48	49	46	47
Expense Management						
Total Operating Expenses as a Percent of Sales	23.6%	21.7%	21.3%	22.7%	24.7%	21.2%
Sales Performance						
Percent Sales Change from Prior Year	8.3%	7.3%	14.2%	12.7%	-3.7%	2.8%

Exhibit 11

HVAC & OTHER EMPHASIS FIRMS

SIX YEAR SUMMARY PERFORMANCE COMPARISON
1981-1986

	1986	1985	1984	1983	1982	1981
Financial Management						
Total Debt to Net Worth	92.5%	78.9%	83.8%	87.1%	92.7%	102.1%
Current Assets Minus Inventory to Current Debt	.9x	1.0x	1.0x	1.0x	1.1x	1.0x
Personnel Productivity						
Net Sales per Employee	$177,161	$166,551	$164,970	$144,910	$133,715	$133,470
Payroll and Fringe Benefits to Net Sales	12.6%	12.7%	13.9%	14.3%	15.1%	15.6%
Inventory Management						
Gross Margin on Sales	24.5%	25.2%	24.9%	26.2%	26.1%	26.1%
Cost of Warehouse Goods Sold to Average Inventory	3.3x	3.1x	3.3x	2.8x	3.3x	3.1x
Total Cost of Goods Sold to Average Inventory	3.7x	3.4x	3.9x	3.4x	3.4x	3.5x
Warehouse Gross Margin Return on Inventory	113%	109%	118%	102%	111%	118%
Accounts Receivable						
Average Collection Period (Days)	46	46	46	49	50	43
Expense Management						
Total Operating Expenses as a Percent of Sales	22.3%	22.9%	22.3%	23.5%	25.1%	23.5%
Sales Performance						
Percent Sales Change from Prior Year	10.9%	7.9%	14.6%	7.8%	-3.7%	-0.8%

Exhibit 12

ALL REPORTING P-H-C-P AND P-V-F WHOLESALER/DISTRIBUTORS

SIX YEAR SUMMARY PERFORMANCE COMPARISON 1981-1986

	1986	1985	1984	1983	1982	1981
Financial Management						
Total Debt to Net Worth	90.8%	88.0%	82.7%	78.4%	68.3%	74.1%
Current Assets Minus Inventory to Current Debt	1.0x	1.1x	1.1x	1.1x	1.3x	1.1x
Personnel Productivity						
Net Sales per Employee	$193,225	$187,024	$186,131	$167,380	$152,258	$162,040
Payroll and Fringe Benefits to Net Sales	13.3%	13.5%	13.7%	14.1%	14.5%	14.1%
Inventory Management						
Gross Margin on Sales	24.9%	24.9%	24.5%	24.8%	25.0%	24.7%
Cost of Warehouse Goods Sold to Average Inventory	3.6x	3.4x	3.6x	3.3x	3.1x	3.4x
Total Cost of Goods Sold to Average Inventory	4.2x	4.0x	4.1x	3.8x	3.6x	3.8x
Warehouse Gross Margin Return on Inventory	122%	120%	123%	114%	109%	119%
Accounts Receivable						
Average Collection Period (Days)	47	47	48	50	47	44
Expense Management						
Total Operating Expenses as a Percent of Sales	22.9%	21.9%	21.5%	22.4%	23.2%	21.7%
Sales Performance						
Percent Sales Change from Prior Year	8.2%	8.3%	15.2%	10.5%	-4.3%	0.9%

trend occurred among Industrial P-V-F Firms, which reported four consecutive years of increased payroll costs (as a percentage of sales) during 1981-1985. This trend, however, ended in 1986 when payroll costs dropped to 14.6% of sales as compared to 15.9% in 1985.

- In the aggregate across all P-H-C-P wholesalers, Gross Margin levels as a percent of sales have essentially held steady for the "typical" industry firm over the 1981-1986 period, at just under 25%. However, within each of the four product emphasis groups varying gross margin patterns have existed.

  - Industrial P-V-F Firms have experienced increased gross margin levels, especially over the past five years, going from 23.4% of sales in 1982 to 27.4% in 1986.

  - Plumbing Supplies & Equipment Firms have experienced approximately steady margins of just over 24 percent of sales.

  - Firms which are categorized as "Plumbing Supplies & Equipment and Industrial P-V-F Firms" experienced a gross margin gain from 24.5% of sales in 1981 to 25.9% in 1986.

  - HVAC & Other Emphasis Firms reported declining margin levels, from 26.1% of sales in 1981 to 24.5% of sales in 1986.

THE ANATOMY OF INVENTORY PRODUCTIVITY

Both "inventory turnover" and "gross margin percent" are useful barometers of inventory management. *Gross Margin Percent* indicates the cost effectiveness at which you are buying products relative to your pricing strategy. *Inventory Turnover* reflects how many times inventories were sold and replaced during a specific period. (In other words, if your inventory turnover is high, chances are you did a good job of buying salable products and keeping a balanced stock level. If, however, this ratio is low then you may have experienced an involuntary build-up of unsalable products which could possibly result in the need for undesirable markdowns.)

The combined effect of gross margin performance and inventory turnover is measured by *Gross Margin Return on Inventory* (defined in this study as gross margin dollars on warehouse sales expressed as a percentage of average inventory investment). Gross Margin Return on Inventory essentially indicates whether an adequate gross margin is being earned compared to the investment in inventory required to generate those gross margin dollars. In other words, any given firm or any given product category can have a high turnover coupled with a low gross margin, or vice versa, and still have a desirable Gross Margin Return on Inventory.

Note: If your firm has a significant amount of sales which come from special orders or non-stock items, your inventory turnover figures are likely to be somewhat inflated as compared to the industry norms reflected in this report. For this reason, this 1987 ASA Operating Performance Report, for the first time ever, includes two new ratios:

% of Warehouse Sales from Non-Stock Items

and

Cost of In-Stock Warehouse Sales to Average Inventory (i.e. inventory turnover based on items in inventory, thus excluding the sale of non-stock items)

While most P-H-C-P wholesalers do not usually consider their sales of non-stock items to be significant, this year's study found that such sales can range as high as 30% of total warehouse sales for some firms. This is especially prevalent among Industrial P-V-F Firms.

In such cases, the new ratios provide a much more realistic indicator of inventory turnover than in the past.

- Inventory Turnover (i.e. cost of warehouse goods sold to average inventory), has fluctuated somewhat over the years but has essentially averaged 3.4 to 3.6 times for the typical industry company (based on all survey participants in the aggregate). However, Plumbing Supplies & Equipment Firms have historically turned inventory somewhat more rapidly (approximately 3.7 to 3.9 times) while Industrial P-V-F Firms as well as HVAC & Other Emphasis Firms have generally shown a slower turnover rate (in the 3.0 to 3.3 range).

Accounts Receivable--A sometimes overlooked component of P-H-C-P wholesaler profitability is the extent to which your firm's customers make timely payment on invoices. One way this is measured is through the ratio called "average collection period" (also sometimes called "days outstanding in receivables"). In recent years this measure has shown the following patterns for the four industry product emphasis groups:

- Plumbing Supplies & Equipment Firms have consistently reported that customers pay in just under 50 days.
- Industrial P-V-F- Firms have experienced a decline in average collection period from 51 days in 1983 to 43 days in 1986.
- The group categorized as Plumbing Supplies & Equipment Firms and Industrial P-V-F Firms experienced an increase in average collection period to 54 days in 1986 (as compared to only 46 days in 1982).
- In 1986, for the third consecutive year, HVAC & Other Emphasis Firms reported receivables to be outstanding only 46 days on the average. While no significantly apparent adverse trend has occurred among P-H-C-P wholesalers in the collection of customer accounts, for any given wholesaler receivables management can have a critically important impact on profitability, depending on how much is "tied up" in receivables and for how long. *For example, $100,000 in receivables can cost you $1,000 to $1,200 per month at today's interest rates just in interest alone, depending on your firm's borrowing rate, or depending upon what you could earn on that money if available for alternative uses. Moreover, money invested in receivables can have a significant influence on your firm's cash flow situation, depending upon the pattern for receiving payment on those accounts.*

In addition to the "average collection period" ratio, another tool provided in this Operating Performance Report for managing your receivables is through the accounts receivable aging information which is summarized on the next two pages. These data shows the percentage of total receivables that are:

- Current (0-30 days since the original date of invoice)
- 31-60 days since the original date of invoice
- 61-90 days since the original date of invoice
- Over 90 days since the original date of invoice.

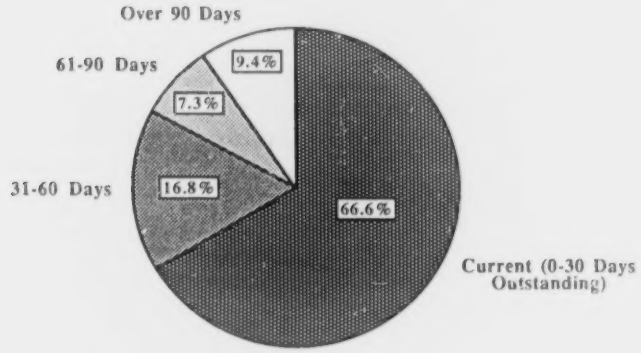
As shown in the charts provided, the typical P-H-C-P wholesaler at year-end 1986 had 66.6% of receivables that were current (0-30 days since the original invoice date); 16.8% that were 31-60 days since the original invoice date; 7.3% that were 61-90 days since the original invoice date; and 9.4% outstanding over 90 days since being invoiced. This general pattern varies only slightly among each of the four product emphasis groups shown.

Financial Management--Virtually all P-H-C-P wholesalers at one time or another are faced with the need to finance their business. This may come in the form of a line of credit to support temporary cash flow needs, money to finance receivables, cash for capital expenditures and business expansion, or many other purposes. When this occurs, the more financial strength you can show your lender regarding your business, the greater likelihood you will be able to obtain the financing required and at favorable rates.

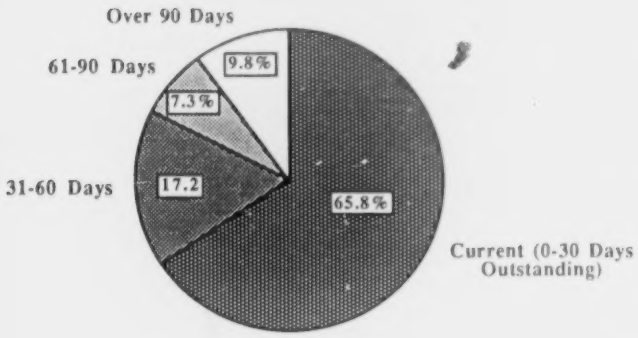
ACCOUNTS RECEIVABLE AGING -- 1986

(Percent of Accounts Receivable Dollars Current & Past Due)

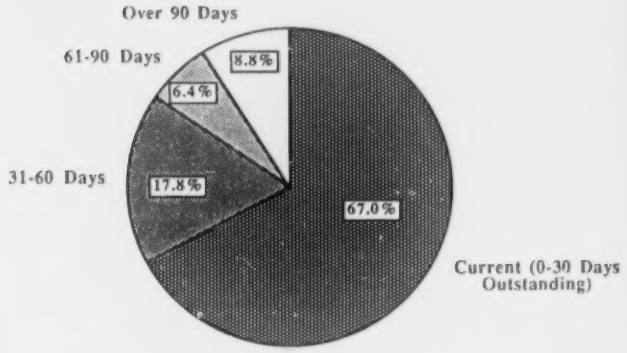
ALL REPORTING FIRMS



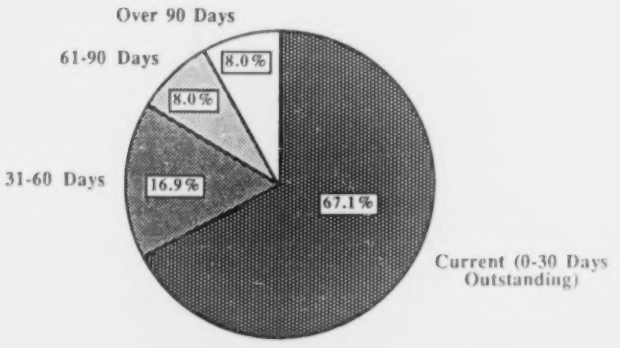
PLUMBING SUPPLIES AND EQUIPMENT FIRMS



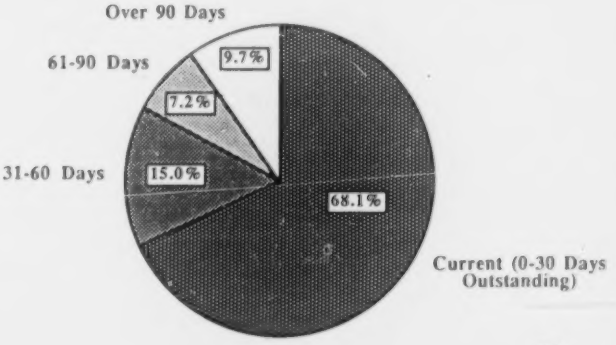
INDUSTRIAL P-V-F FIRMS



PLUMBING SUPPLIES & EQUIPMENT AND INDUSTRIAL P-V-F FIRMS



HVAC & OTHER EMPHASIS FIRMS



As a tool for evaluating and managing your firm's financial strength, a number of financial management measures are provided in each year's Operating Performance Report. Given that your banker and/or other lender(s) are probably not extremely familiar with the specifics of the P-H-C-P wholesale/distribution business, the information in this study can be presented along with your figures when applying for loans. This will guide your lender in better understanding your operations.

The most important indicators of financial strength are leverage and liquidity. Essentially, *leverage* shows the degree to which a firm relies on creditors funds (debt) to finance a portion of the buisness. *Liquidity* refers to a firm's ability to meet its current debt obligations (that is, pay its bills). In the summary tables provided earlier, leverage is indicated by the ratio "total debt to net worth" while liquidity is measured by "current assets minus inventory to current debt."

Among the four product emphasis groupings of firms participating in this year's ASA survey, the following patterns of financial management strength are noteworthy:

- Liquidity, as measured by current assets minus inventory to current debt, has remained fairly constant for the typical industry firm over the years

- Leverage has trended upward, indicating a generally greater reliance on debt financing in 1986 as compared to the early 1980's. This is especially true of Plumbing Supplies & Equipment Firms which, in 1986, reported total debt as 106.9% of net worth for the typical company, versus only 68.9% in 1982.

Expense and Profit Trends--While financial management, receivables management and productivity are all important to a company's success, the area of operations that typically receive the most managerial attention on a regular basis are expenses and bottom line profitability. Most owners and key managers receive and scrutinize income statement (i.e. P&L) performance results from their accountant, bookkeeper, or computer system on a routine basis. As a result, watching and controlling expenses and bottom line profit margins is usually foremost in their minds.

The charts in the next couple of pages graphically highlight the 1981-1986 P-H-C-P wholesaler expense and margin trends relative to sales. Of particular significance is that:

- In 1986 the typical industry firm experienced net profits after tax of 1.5% of sales, down only slightly from the 1.6% reported in 1985.

- The highest profits as a percentage of sales in 1986 were reported by Plumbing Supplies & Equipment Firms along with HVAC & Other Emphasis Firms, both experiencing a 1.6% profit margin. Meanwhile, Industrial P-V-F Firms had the lowest bottom line profits relative to sales (1.0%).

- Operating expenses as a percentage of sales among all survey participants in the aggregate held steady in 1986 at under 22%. However, Industrial P-V-F Firms reported the fourth consecutive year of rising expenses (from 23.4% of sales in 1982 to 27.4% in 1986).

Sales Performance--The last line of the "Six Year Summary Performance Comparison Table" provided earlier in this report (Exhibit 8) shows that sales in 1986 increased 8.2% over 1985 levels for the typical P-H-C-P wholesaler responding to the survey. This performance is approximately identical to that which was experienced in 1985 (versus 1984).

However, the typical Industrial P-V-F Firm found 1986 to be much more difficult than did the other industry segments. Sales for these firms remained essentially flat, with virtually no increase over 1985 (Exhibit 9).

As a tool for evaluating and managing your firm's financial strength, a number of financial management measures are provided in each year's Operating Performance Report. Given that your banker and/or other lender(s) are probably not extremely familiar with the specifics of the P-H-C-P wholesale/distribution business, the information in this study can be presented along with your figures when applying for loans. This will guide your lender in better understanding your operations.

The most important indicators of financial strength are leverage and liquidity. Essentially, *leverage* shows the degree to which a firm relies on creditors funds (debt) to finance a portion of the buisness. *Liquidity* refers to a firm's ability to meet its current debt obligations (that is, pay its bills). In the summary tables provided earlier, leverage is indicated by the ratio "total debt to net worth" while liquidity is measured by "current assets minus inventory to current debt."

Among the four product emphasis groupings of firms participating in this year's ASA survey, the following patterns of financial management strength are noteworthy:

- Liquidity, as measured by current asets minus inventory to current debt, has remained fairly constant for the typical industry firm over the years

- Leverage has trended upward, indicating a generally greater reliance on debt financing in 1986 as compared to the early 1980's. This is especially true of Plumbing Supplies & Equipment Firms which, in 1986, reported total debt as 106.9% of net worth for the typical company, versus only 68.9% in 1982.

Expense and Profit Trends--While financial management, receivables management and productivity are all important to a company's success, the area of operations that typically receive the most managerial attention on a regular basis are expenses and bottom line profitability. Most owners and key managers receive and scrutinize income statement (i.e. P&L) performance results from their accountant, bookkeeper, or computer system on a routine basis. As a result, watching and controlling expenses and bottom line profit margins is usually foremost in their minds.

The charts in the next couple of pages graphically highlight the 1981-1986 P-H-C-P wholesaler expense and margin trends relative to sales. Of particular significance is that:

- In 1986 the typical industry firm experienced net profits after tax of 1.5% of sales, down only slightly from the 1.6% reported in 1985.

- The highest profits as a percentage of sales in 1986 were reported by Plumbing Supplies & Equipment Firms along with HVAC & Other Emphasis Firms, both experiencing a 1.6% profit margin. Meanwhile, Industrial P-V-F Firms had the lowest bottom line profits relative to sales (1.0%).

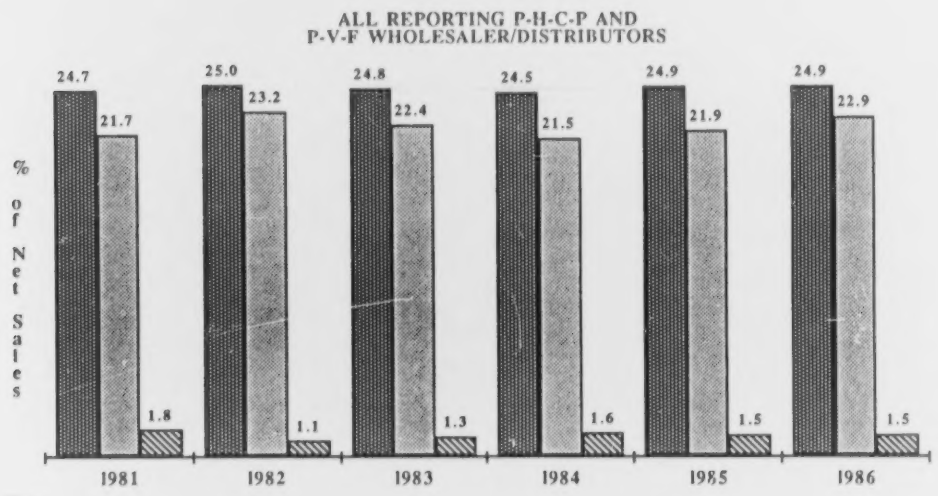
- Operating expenses as a percentage of sales among all survey participants in the aggregate held steady in 1986 at under 22%. However, Industrial P-V-F Firms reported the fourth consecutive year of rising expenses (from 23.4% of sales in 1982 to 27.4% in 1986).

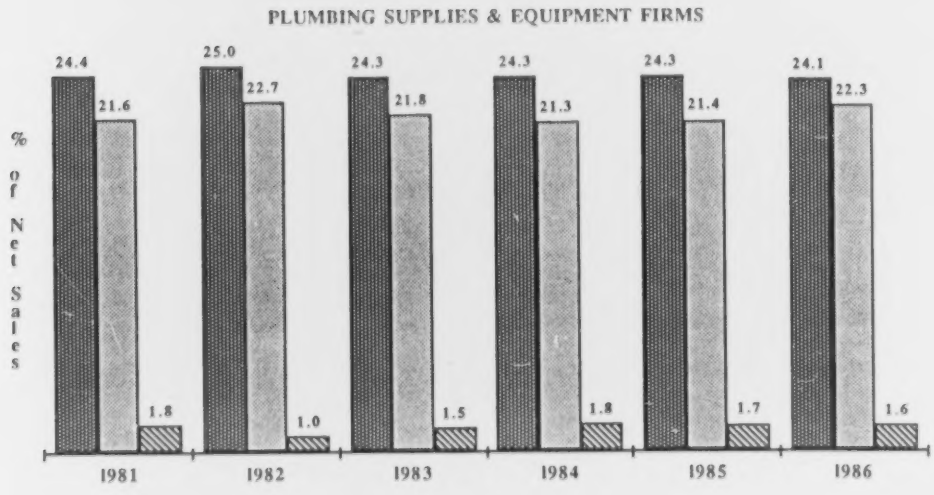
Sales Performance--The last line of the "Six Year Summary Performance Comparison Table" provided earlier in this report (Exhibit 8) shows that sales in 1986 increased 8.2% over 1985 levels for the typical P-H-C-P wholesaler responding to the survey. This performance is approximately identical to that which was experienced in 1985 (versus 1984).

However, the typical Industrial P-V-F Firm found 1986 to be much more difficult than did the other industry segments. Sales for these firms remained essentially flat, with virtually no increase over 1985 (Exhibit 9).

SIX YEAR EXPENSE & PROFIT TRENDS
(1981 - 1986)

Gross Margin | Operating Expense | Net Profit After Tax

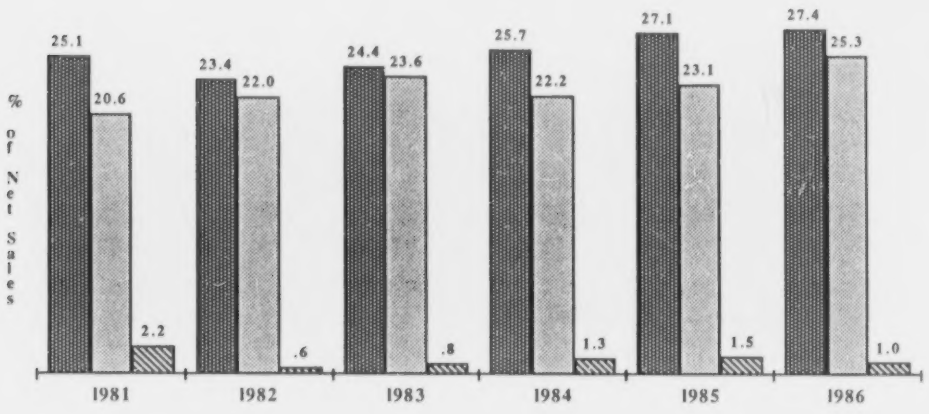




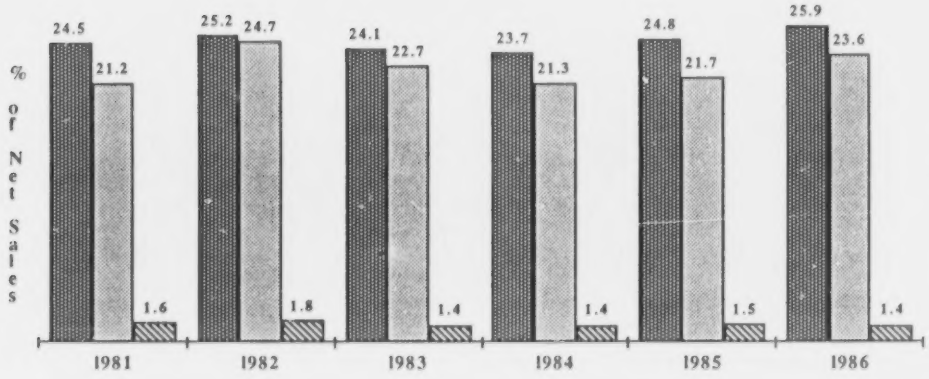
SIX YEAR EXPENSE & PROFIT TRENDS (cont'd)
(1981 - 1986)

Gross Margin | Operating Expense | Net Profit After Tax

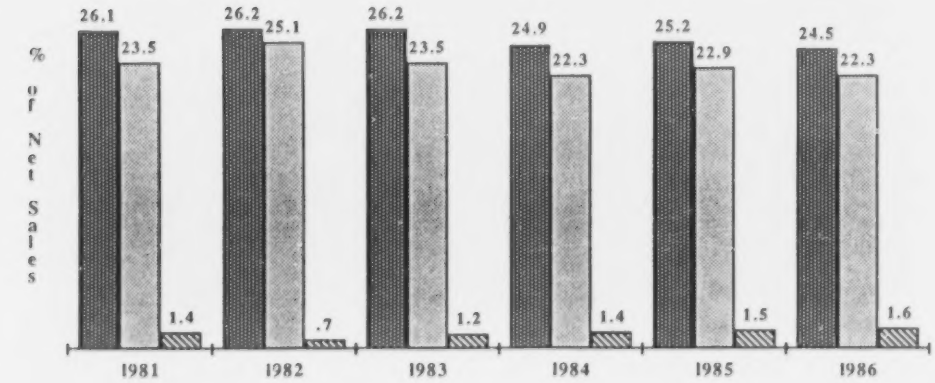
INDUSTRIAL P-V-F FIRMS



PLUMBING SUPPLIES & EQUIPMENT
AND INDUSTRIAL P-V-F FIRMS



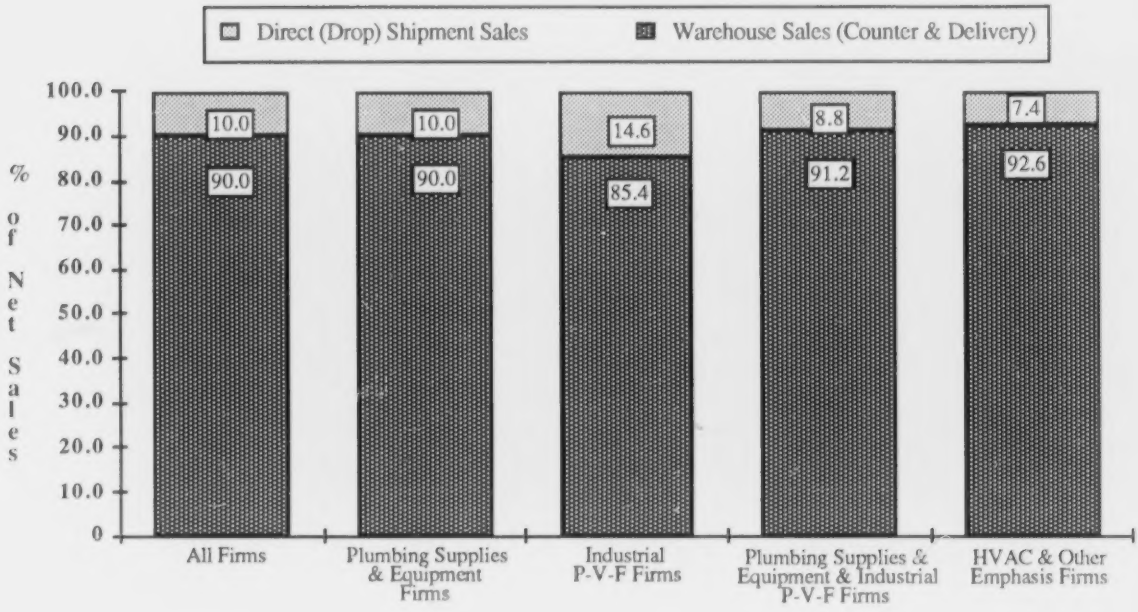
HVAC & OTHER EMPHASIS FIRMS



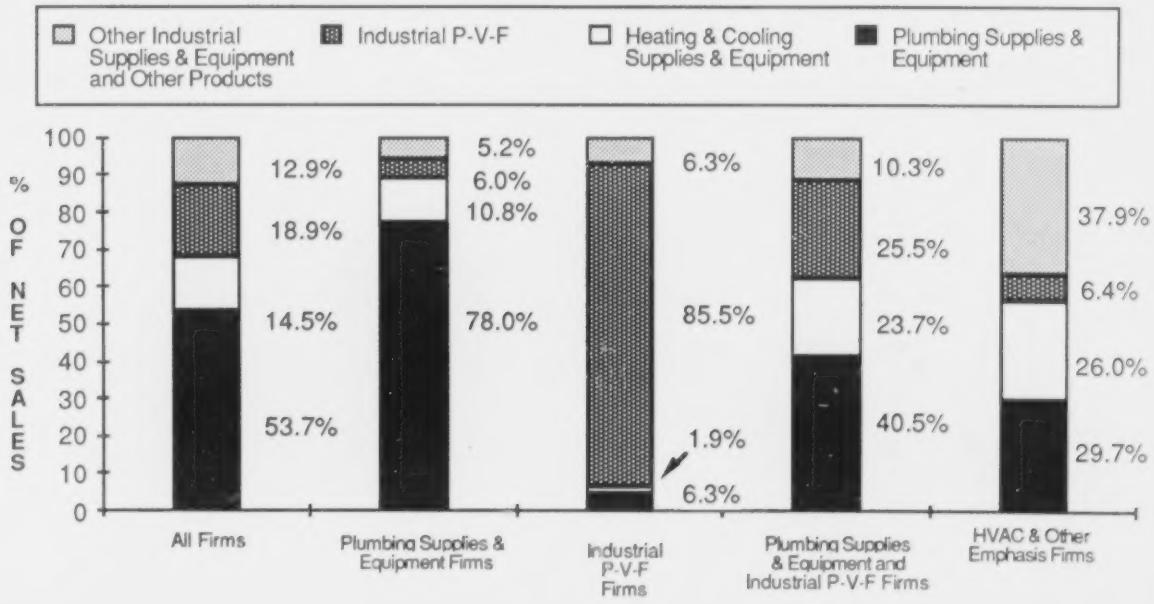
For your reference, additional insights into the make-up of P-H-C-P wholesaler sales by type of operator are shown below. The charts provided indicate the mix of direct or drop shipment sales versus warehouse (counter and delivery) sales. Also shown is the mix of sales by broad product categories for each of the four industry segments and the "all firms" group.

ANALYSIS OF 1986 P-H-C-P WHOLESALER SALES

SALES MIX



PRODUCT MIX



1986 vs. 1985 Profitability Comparison

Each year's ASA Operating Performance Report contains a special analysis showing industry profitability based on"return on net worth." This single measure esentially summarizes all the key components of profitability: margin management, asset management and financial policy management.

The exhibit on the following page shows the overall return on net worth of P-H-C-P wholesalers in both 1986 and 1985 as well as the combined impact of each of the three "pathways" to high profitability. These include:

- Profit Margin refers to net profit (after tax) divided by net sales. It is a good measure of margin management because in order to achieve an acceptable net profit margin, a company must earn an acceptable gross margin while keeping expenses in line.

- Asset Turnover depicts net sales divided by total assets. This is an overall measure of asset management, showing how many dollars in sales are being generated by each dollar of assets employed in running the business.

- Financial Leverage is derived from total assets divided by net worth. Financial leverage is nothing more than the degree to which debt is used to finance the business as opposed to net worth (owner's investment).

Since the above three components multiply together to yield return on net worth, increases in any of these three components improves the overall profitability of the firm.

Based on the profit models shown for each of the various types of P-H-C-P wholesalers, several overall insights are apparent:

- For the third consecutive year, overall industry return on net worth ranged in the 8 to 9% level, based on the "All Reporting Firms" group.

- The most improved group was HVAC & Other Emphasis firms, which reported 1986 return on net worth of 8.7% for the typical firm, up from 6.4% in 1985. These firms were also the most profitable industry segment.

- The least profitable group was Plumbing Supplies & Equipment and Industrial P-V-F Firms. These survey respondents experienced only a 6.4% return on net worth in 1986.

High Profit Firms vs. the "Typical" Firm

An especially enlightening component of each year's ASA Operating Performance Report is the special set of statistics which show the performance of the "High Profit Firms" in the industry (based on before tax return on assets). When attempting to improve the profitability of one's own company, it is an excellent idea to focus attention on the characteristics of these industry profit leaders in order to identify the key components of their success. Doing so may be useful in helping to identify which business activities are most worthy of focusing managerial attention in order to yield the biggest profitability boost.

The table below is a summary of the key indicators of profitability, showing the results of the "High Profit Firms" as compared to the typical or median company performance. As shown:

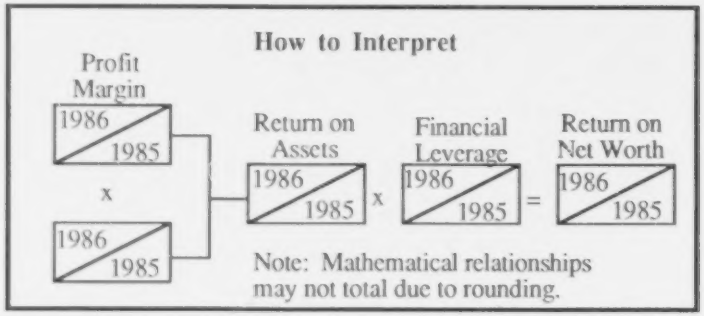
- High profit P-H-C-P wholesalers in 1986 experienced consistently higher sales increases over 1985 than did the "typical" firm responding to the ASA survey.

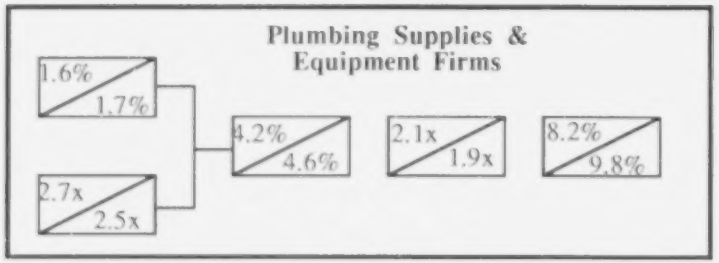
- Virtually no performance difference existed between the high profit firms and the "typical" firm's experience in 1986 regarding operating expenses as a percentage of sales as well as average collection period on receivables.

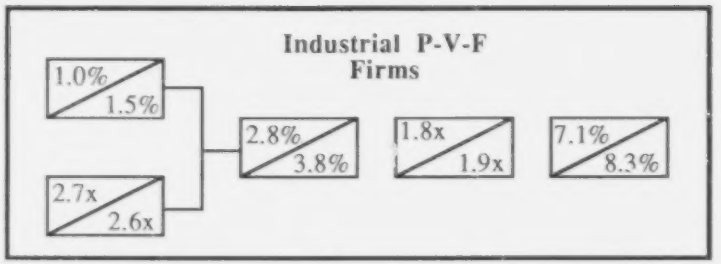
- High profit performers tended to report somewhat higher gross margins as a percent of sales as well as somewhat higher inventory turnover levels.

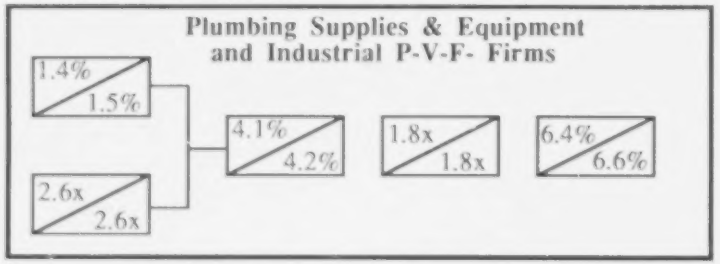
P-H-C-P WHOLESALER TWO YEAR STRATEGIC PROFIT MODEL RATIOS

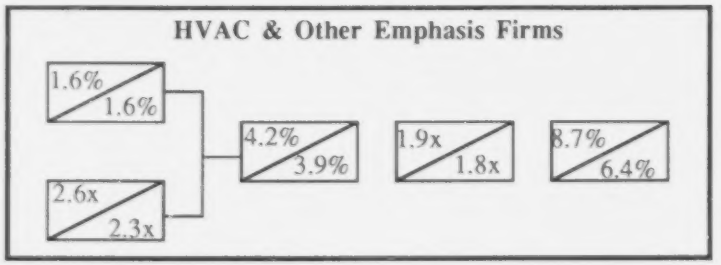
(1986 VS 1985)

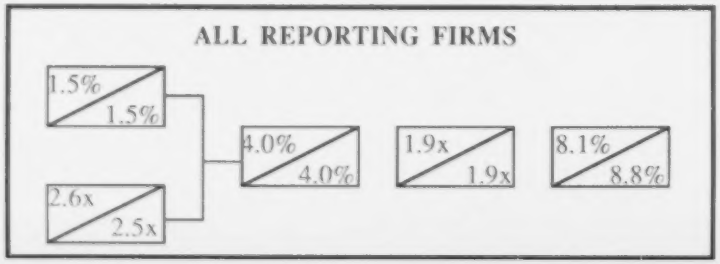












- Personnel productivity in 1986, as measured by net sales per employee, strongly favored the high profit companies.
- High profit companies in 1986 were less highly leveraged (i.e. relied on less debt financing relative to equity financing) and had higher levels of liquidity (as measured by current assets to current debt).

1986 HIGH PROFIT VS. "TYPICAL FIRM" PERFORMANCE COMPARISON

	Plumbing Supplies & Equipment Firms		Industrial P-V-F Firms		Plumbing Supplies & Equipment & Industrial P-V-F Firms		HVAC & Other Emphasis Firms		
Profitability	Typical	High Profit	Typical	High Profit	Typical	High Profit	Typical	High Profit	All Firms
Net Profit (After Tax) to Total Assets	4.2%	7.0%	2.8%	6.0%	4.1%	5.9%	4.2%	7.4%	4.0%
Net Profit (After Tax) to Net Worth	8.2	12.7	7.1	11.2	6.4	10.8	8.7	12.2	8.1
Net Profit (After Tax) to Net Sales	1.6	2.6	1.0	2.2	1.4	2.3	1.6	2.4	1.5
Asset and Financial Management									
Net Sales to Total Assets	2.7x	2.7x	2.7x	2.9x	2.6x	2.7x	2.6x	2.7x	2.6x
Total Debt to Net Worth	106.9%	76.2%	80.7%	77.4%	73.4%	71.3%	92.5%	85.7%	90.8%
Current Assets to Current Debt	2.5x	2.8x	2.8x	2.8x	2.5x	2.7x	2.5x	2.5x	2.5x
Personnel Productivity									
Net Sales/Employee (000)	$196.2	$209.7	$205.2	$207.0	$189.6	$196.6	$177.2	$207.7	$193.2
Payroll & Fringe Benefits to Net Sales	13.1%	12.6%	14.6%	14.1%	14.9%	15.2%	12.6%	12.2%	13.3%
Inventory Management									
Gross Margin on Net Sales	24.1%	24.6%	27.4%	30.2%	25.9%	27.7%	24.5%	25.4%	24.9%
Gross Margin on Direct Shipments	10.6%	10.2%	11.7%	12.0%	11.7%	10.0%	13.2%	12.5%	11.6%
Gross Margin on Warehouse Sales	24.1%	24.2%	27.7%	28.3%	26.1%	26.2%	24.7%	25.3%	25.1%
Cost of Warehouse Goods Sold to Average Inventory	3.9x	3.9x	3.3x	3.7x	3.7x	3.9x	3.3x	3.6x	3.6x
% Warehouse Sales from Non-Stock Items	7.0%	5.0%	20.0%	26.5%	13.6%	12.0%	7.0%	5.0%	10.0%
Cost of In-Stock Warehouse Sales to Average Inventory	3.5x	3.5x	2.6x	2.7x	3.1x	3.0x	3.0x	3.4x	3.1x
Total Cost of Goods Sold to Average Inventory	4.1x	4.2x	4.2x	4.3x	4.4x	4.4x	3.7x	4.4x	4.2x
Warehouse Gross Margin Return on Average Inventory	124%	125%	127%	153%	130%	142%	113%	127%	122%
Accounts Receivable									
Average Collection Period (Days)	48	48	43	43	54	54	46	47	47
Operating Expenses (% of Net Sales)									
Selling Expenses	6.1%	5.8%	7.9%	8.2%	7.4%	7.5%	6.6%	5.4%	6.6%
Delivery Expenses	1.9%	1.9%	2.1%	2.1%	1.9%	2.1%	1.6%	1.5%	1.9%
Warehouse Expenses	2.9%	2.8%	3.3%	2.8%	2.9%	3.0%	2.7%	2.8%	2.9%
General & Administrative Expenses	8.8%	8.1%	9.9%	10.1%	9.2%	8.7%	9.0%	8.6%	9.1%
Occupancy Expenses	2.1%	2.0%	2.0%	2.3%	1.9%	2.1%	1.8%	1.8%	2.0%
Total Operating Expenses	22.3%	21.1%	25.3%	25.8%	23.6%	23.7%	22.3%	21.1%	22.9%
Sales Performance									
Percent Sales Change from Prior Year	9.4%	11.2%	0.1%	2.1%	8.3%	12.9%	10.9%	16.0%	8.2%

PLUMBING SUPPLIES &

EQUIPMENT FIRMS

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	8.2%	3.7 - 16.1%
Total Assets to Net Worth	2.1X	1.5 - 3.3X
Net Profit After Tax to Total Assets	4.2%	1.8 - 7.0%
Net Sales to Total Assets	2.7X	2.1 - 3.0X
Net Profit After Tax to Net Sales	1.6%	0.7 - 2.7%
Net Profit Before Tax to Net Worth	11.2%	4.6 - 22.8%
Net Profit Before Tax to Total Assets	5.9%	2.4 - 9.3%
EBIT to Total Assets	8.0%	5.1 - 11.0%
SALES ANALYSIS		
Net Sales($000)	$5,655	$2,984 - 11,922
Percent Sales Change from Prior Year	9.4%	-0.8 - 16.6%
Sales Mix:		
Direct Sales	10.0%	2.6 - 13.5%
Warehouse Sales - Counter and Delivery	90.0%	86.5 - 97.4%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	77.9%	65.0 - 93.5%
Heating & Cooling Supplies & Equipment	10.8%	0.0 - 20.0%
Industrial P-V-F (Pipes-Valves-Fittings)	6.0%	0.0 - 10.0%
Other Industrial Supplies & Equipment	1.1%	0.0 - 0.0%
Other Products	4.1%	0.0 - 5.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.1%	21.3 - 26.9%
Gross Margin on Direct Shipments	10.6%	7.5 - 14.2%
Gross Margin on Warehouse Sales	24.1%	22.0 - 27.2%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.95X	2.54 - 3.40X
Total Debt to Net Worth	106.9%	44.7 - 224.8%
Current Debt to Net Worth	73.3%	35.8 - 176.7%
Current Assets to Current Debt	2.49X	1.60 - 3.51X
Current Assets Minus Inventory/Curr Debt	1.05X	0.64 - 1.61X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	5.0 - 8.0
Average Invoice Size	$170	$108 - 223
Average Billing Line	$26.44	$18.48 - 40.59

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$196,208	$161,406 - 236,366
Gross Margin Per Employee	$46,396	$40,490 - 55,569
Average Compensation Per Employee	$23,128	$20,403 - 26,301
Average Fringe Benefits Per Employee	$4,103	$2,938 - 5,379
Compensation & Fringes Per Employee	$26,511	$23,392 - 30,282
Payroll to Net Sales	11.4%	10.4 - 13.4%
Fringe Benefits to Net Sales	2.1%	1.6 - 2.6%
Payroll & Fringes to Net Sales	13.1%	10.5 - 15.4%
Payroll to Gross Margin	49.5%	45.3 - 53.4%
Fringe Benefits to Gross Margin	8.6%	7.1 - 11.0%
Payroll & Fringes to Gross Margin	56.3%	48.7 - 62.1%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.85X	3.22 - 4.98X
% of Whse Sales from Non-Stock Items	7.0%	5.0 - 15.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.49X	2.78 - 4.34X
No. of Days Average Inventory Carried	95 Days	73 - 113 Days
Total Cost of Goods Sold to Ave Inventory	4.10X	3.32 - 5.55X
Whse Gross Margin Return on Ave Inventory	124%	104 - 163%
Turn & Earn Profitability Index	95%	81 - 120%
Percent of Firms on LIFO	49.7%	
ACCOUNTS RECEIVABLE		
Average Collection Period	48 Days	42 - 55 Days
Gross Margin Return on Receivables	174%	148 - 212%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	65.8%	56.1 - 76.5%
31-60 Days Outstanding	17.2%	12.4 - 20.5%
61-90 Days Outstanding	7.3%	4.1 - 9.7%
Over 90 Days Outstanding	9.8%	3.6 - 15.3%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,133	$688 - 1,996
31-60 Days Outstanding	$1,376	$713 - 2,116
61-90 Days Outstanding	$1,084	$472 - 2,186
Over 90 Days Outstanding	$1,315	$629 - 2,664
Total	$1,237	$831 - 1,919
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	69.4%	60.3 - 82.0%
31-60 Days Outstanding	16.3%	9.7 - 20.3%
61-90 Days Outstanding	7.1%	3.6 - 9.9%
Over 90 Days Outstanding	7.2%	3.3 - 9.5%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.9%	73.1 - 78.7%
Gross Margin	24.1%	21.3 - 26.9%
Operating Expenses:		
Selling Expenses	6.1%	4.4 - 7.3%
Delivery Expenses	1.9%	1.2 - 2.5%
Warehouse Expenses	2.9%	1.9 - 3.7%
General & Administrative Expenses	8.8%	6.4 - 10.6%
Occupancy Expenses	2.1%	1.1 - 3.0%
Other Operating Expenses	0.5%	0.0 - 0.4%
Total Operating Expenses	22.3%	19.0 - 25.3%
Net Operating Profit	1.8%	0.8 - 3.3%
Non-Operating Income	1.8%	1.0 - 2.6%
Non-Operating Expenses	1.8%	0.8 - 2.7%
Net Profit Before Tax	1.8%	0.9 - 3.5%
Net Profit After Tax	1.6%	0.7 - 2.7%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.3%	19.0 - 25.3%
Total Operating Expense to Gross Margin	93.1%	85.9 - 97.1%
Non-People Expense to Net Sales	8.0%	6.3 - 9.6%
Non-People Expense to Gross Margin	33.1%	28.0 - 37.6%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.8%	0.4 - 1.6%
Times Interest Earned	3.4X	1.7 - 7.5X
BALANCE SHEET		
Cash	6.1%	0.9 - 8.9%
Accounts & Notes Receivable, Trade(Net)	30.4%	23.5 - 37.1%
Inventory	48.5%	40.9 - 57.4%
Other Current Assets	1.8%	0.2 - 2.1%
Total Current Assets	86.8%	82.9 - 93.9%
All Other Assets	13.2%	6.2 - 17.1%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	39.4%	23.1 - 56.4%
Total Long-Term Liabilities	11.1%	0.8 - 15.2%
Total Liabilities	50.6%	30.6 - 69.3%
Total Net Worth	49.3%	30.7 - 69.1%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES UNDER $3,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	8.3%	3.9 - 19.2%
Total Assets to Net Worth	1.9X	1.4 - 3.3X
Net Profit After Tax to Total Assets	5.6%	2.5 - 7.3%
Net Sales to Total Assets	2.4X	1.9 - 2.7X
Net Profit After Tax to Net Sales	2.1%	1.0 - 3.5%
Net Profit Before Tax to Net Worth	10.3%	3.8 - 21.4%
Net Profit Before Tax to Total Assets	6.9%	2.3 - 9.5%
EBIT to Total Assets	8.1%	4.9 - 10.8%
SALES ANALYSIS		
Net Sales($000)	$1,993	$1,481 - 2,516
Percent Sales Change from Prior Year	8.0%	-2.3 - 16.8%
Sales Mix:		
Direct Sales	8.1%	0.7 - 11.1%
Warehouse Sales - Counter and Delivery	91.9%	88.9 - 99.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	84.0%	75.0 - 95.5%
Heating & Cooling Supplies & Equipment	7.1%	0.0 - 13.5%
Industrial P-V-F (Pipes-Valves-Fittings)	4.8%	0.0 - 9.0%
Other Industrial Supplies & Equipment	1.0%	0.0 - 0.0%
Other Products	3.1%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.5%	23.4 - 29.5%
Gross Margin on Direct Shipments	8.9%	6.6 - 29.5%
Gross Margin on Warehouse Sales	26.3%	21.6 - 29.4%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.82X	2.24 - 3.01X
Total Debt to Net Worth	85.8%	37.6 - 231.1%
Current Debt to Net Worth	75.6%	30.6 - 153.0%
Current Assets to Current Debt	2.47X	1.74 - 4.00X
Current Assets Minus Inventory/Curr Debt	0.98X	0.61 - 1.61X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	5.0 - 10.5
Average Invoice Size	$147	$80 - 230
Average Billing Line	$20.21	$10.36 - 32.63

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES UNDER $3,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$154,399	$130,862 - 201,599
Gross Margin Per Employee	$39,878	$34,380 - 48,788
Average Compensation Per Employee	$20,623	$16,302 - 24,380
Average Fringe Benefits Per Employee	$3,229	$2,383 - 5,241
Compensation & Fringes Per Employee	$23,854	$17,452 - 29,489
Payroll to Net Sales	12.2%	10.6 - 16.2%
Fringe Benefits to Net Sales	2.2%	1.7 - 3.0%
Payroll & Fringes to Net Sales	13.2%	5.1 - 16.6%
Payroll to Gross Margin	50.5%	45.5 - 54.9%
Fringe Benefits to Gross Margin	8.8%	7.1 - 11.1%
Payroll & Fringes to Gross Margin	56.4%	18.1 - 63.6%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.90X	2.71 - 5.62X
% of Whse Sales from Non-Stock Items	7.0%	5.0 - 15.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.47X	2.71 - 4.94X
No. of Days Average Inventory Carried	93 Days	65 - 135 Days
Total Cost of Goods Sold to Ave Inventory	3.39X	2.45 - 5.17X
Whse Gross Margin Return on Ave Inventory	119%	104 - 186%
Turn & Earn Profitability Index	86%	75 - 134%
Percent of Firms on LIFO	17.1%	
ACCOUNTS RECEIVABLE		
Average Collection Period	51 Days	43 - 58 Days
Gross Margin Return on Receivables	170%	147 - 209%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	64.4%	54.8 - 76.5%
31-60 Days Outstanding	19.0%	14.2 - 22.3%
61-90 Days Outstanding	6.7%	2.7 - 9.9%
Over 90 Days Outstanding	9.9%	1.7 - 16.5%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$766	$417 - 1,247
31-60 Days Outstanding	$954	$576 - 1,607
61-90 Days Outstanding	$467	$344 - 1,067
Over 90 Days Outstanding	$840	$460 - 2,680
Total	$831	$543 - 1,194
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	69.7%	61.0 - 84.4%
31-60 Days Outstanding	17.1%	10.0 - 21.4%
61-90 Days Outstanding	7.1%	3.0 - 9.8%
Over 90 Days Outstanding	6.2%	3.6 - 7.1%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES UNDER $3,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.5%	70.5 - 76.6%
Gross Margin	26.5%	23.4 - 29.5%
Operating Expenses:		
Selling Expenses	7.3%	4.4 - 9.8%
Delivery Expenses	2.4%	1.8 - 3.3%
Warehouse Expenses	2.9%	1.8 - 4.1%
General & Administrative Expenses	9.2%	5.7 - 11.8%
Occupancy Expenses	1.9%	1.0 - 2.8%
Other Operating Expenses	0.5%	0.0 - 0.1%
Total Operating Expenses	24.2%	20.4 - 28.2%
Net Operating Profit	2.4%	0.1 - 4.3%
Non-Operating Income	1.5%	0.5 - 2.2%
Non-Operating Expenses	1.8%	0.2 - 2.2%
Net Profit Before Tax	2.1%	0.9 - 3.5%
Net Profit After Tax	2.1%	1.0 - 3.5%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	24.2%	20.4 - 28.2%
Total Operating Expense to Gross Margin	91.2%	84.2 - 99.7%
Non-People Expense to Net Sales	8.3%	6.1 - 10.2%
Non-People Expense to Gross Margin	31.7%	27.2 - 34.8%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.2 - 1.7%
Times Interest Earned	4.8X	2.1 - 14.2X
BALANCE SHEET		
Cash	7.3%	0.8 - 11.6%
Accounts & Notes Receivable, Trade(Net)	26.8%	19.8 - 35.1%
Inventory	51.1%	43.0 - 59.4%
Other Current Assets	2.0%	0.1 - 2.9%
Total Current Assets	87.2%	82.8 - 94.2%
All Other Assets	12.8%	5.8 - 17.1%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	37.8%	21.9 - 50.5%
Total Long-Term Liabilities	11.8%	0.0 - 11.8%
Total Liabilities	49.6%	29.8 - 70.0%
Total Net Worth	50.4%	30.0 - 70.3%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $3,000,000 TO $7,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	8.7%	4.4 - 16.5%
Total Assets to Net Worth	1.7X	1.4 - 2.9X
Net Profit After Tax to Total Assets	4.5%	2.9 - 7.8%
Net Sales to Total Assets	2.7X	2.1 - 3.2X
Net Profit After Tax to Net Sales	1.8%	1.1 - 2.9%
Net Profit Before Tax to Net Worth	11.1%	5.3 - 20.8%
Net Profit Before Tax to Total Assets	6.3%	3.8 - 11.9%
EBIT to Total Assets	7.3%	5.7 - 13.0%
SALES ANALYSIS		
Net Sales ($000)	$4,647	$3,874 - 5,993
Percent Sales Change from Prior Year	7.9%	-0.9 - 13.9%
Sales Mix:		
Direct Sales	11.5%	1.9 - 18.4%
Warehouse Sales - Counter and Delivery	88.5%	81.6 - 98.1%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	77.2%	63.0 - 95.0%
Heating & Cooling Supplies & Equipment	10.9%	0.0 - 20.0%
Industrial P-V-F (Pipes-Valves-Fittings)	5.4%	0.0 - 10.0%
Other Industrial Supplies & Equipment	1.2%	0.0 - 0.0%
Other Products	5.2%	0.0 - 8.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	23.8%	21.0 - 26.3%
Gross Margin on Direct Shipments	10.0%	6.6 - 16.0%
Gross Margin on Warehouse Sales	25.1%	21.5 - 27.2%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.02X	2.52 - 3.32X
Total Debt to Net Worth	66.2%	37.4 - 185.3%
Current Debt to Net Worth	56.0%	29.2 - 119.5%
Current Assets to Current Debt	2.73X	1.76 - 3.96X
Current Assets Minus Inventory/Curr Debt	1.11X	0.80 - 2.06X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	5.0 - 7.5
Average Invoice Size	$177	$126 - 221
Average Billing Line	$25.95	$19.11 - 34.60

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $3,000,000 TO $7,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$194,728	$167,054 - 236,366
Gross Margin Per Employee	$47,304	$41,403 - 53,552
Average Compensation Per Employee	$23,031	$21,260 - 26,077
Average Fringe Benefits Per Employee	$4,155	$3,073 - 5,363
Compensation & Fringes Per Employee	$26,302	$24,253 - 30,257
Payroll to Net Sales	12.1%	10.5 - 13.7%
Fringe Benefits to Net Sales	2.1%	1.5 - 2.9%
Payroll & Fringes to Net Sales	13.3%	10.2 - 16.4%
Payroll to Gross Margin	50.6%	46.3 - 54.6%
Fringe Benefits to Gross Margin	8.5%	7.0 - 11.2%
Payroll & Fringes to Gross Margin	56.3%	49.8 - 62.6%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.84X	3.30 - 5.66X
% of Whse Sales from Non-Stock Items	7.0%	3.8 - 13.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.62X	3.00 - 4.51X
No. of Days Average Inventory Carried	95 Days	65 - 111 Days
Total Cost of Goods Sold to Ave Inventory	4.25X	3.50 - 6.19X
Whse Gross Margin Return on Ave Inventory	125%	99 - 188%
Turn & Earn Profitability Index	94%	81 - 135%
Percent of Firms on LIFO	46.9%	
ACCOUNTS RECEIVABLE		
Average Collection Period	46 Days	40 - 52 Days
Gross Margin Return on Receivables	183%	151 - 229%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	65.0%	51.8 - 76.0%
31-60 Days Outstanding	16.8%	11.9 - 20.0%
61-90 Days Outstanding	8.2%	4.6 - 10.7%
Over 90 Days Outstanding	10.0%	3.4 - 15.9%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,295	$721 - 2,038
31-60 Days Outstanding	$1,304	$662 - 2,050
61-90 Days Outstanding	$1,080	$639 - 2,208
Over 90 Days Outstanding	$981	$571 - 2,214
Total	$1,342	$886 - 1,910
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	68.0%	58.1 - 79.8%
31-60 Days Outstanding	16.6%	10.0 - 20.3%
61-90 Days Outstanding	8.1%	4.0 - 10.5%
Over 90 Days Outstanding	7.3%	3.2 - 10.1%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $3,000,000 TO $7,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.2%	73.7 - 79.0%
Gross Margin	23.8%	21.0 - 26.3%
Operating Expenses:		
Selling Expenses	6.1%	4.4 - 7.5%
Delivery Expenses	1.9%	1.2 - 2.6%
Warehouse Expenses	2.6%	1.8 - 3.2%
General & Administrative Expenses	8.9%	6.2 - 11.4%
Occupancy Expenses	2.1%	1.0 - 3.1%
Other Operating Expenses	0.5%	0.0 - 0.2%
Total Operating Expenses	22.0%	19.0 - 25.2%
Net Operating Profit	1.8%	1.0 - 3.4%
Non-Operating Income	1.8%	0.9 - 2.6%
Non-Operating Expenses	1.4%	0.2 - 2.2%
Net Profit Before Tax	2.3%	1.1 - 4.0%
Net Profit After Tax	1.8%	1.1 - 2.9%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.0%	19.0 - 25.2%
Total Operating Expense to Gross Margin	92.5%	85.1 - 95.4%
Non-People Expense to Net Sales	7.6%	5.4 - 9.7%
Non-People Expense to Gross Margin	31.7%	24.9 - 38.4%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.6%	0.3 - 1.5%
Times Interest Earned	5.3X	2.2 - 8.3X
BALANCE SHEET		
Cash	8.4%	1.4 - 13.2%
Accounts & Notes Receivable, Trade(Net)	30.7%	25.2 - 37.6%
Inventory	46.3%	36.3 - 57.4%
Other Current Assets	1.4%	0.2 - 1.6%
Total Current Assets	86.8%	86.2 - 93.2%
All Other Assets	13.2%	6.8 - 13.8%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	35.5%	21.8 - 48.3%
Total Long-Term Liabilities	9.0%	0.5 - 13.3%
Total Liabilities	44.5%	26.7 - 65.0%
Total Net Worth	55.2%	35.0 - 72.7%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $7,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	6.2%	1.4 - 13.1%
Total Assets to Net Worth	2.4X	1.5 - 3.2X
Net Profit After Tax to Total Assets	3.3%	1.0 - 4.8%
Net Sales to Total Assets	2.8X	2.4 - 3.1X
Net Profit After Tax to Net Sales	1.2%	0.3 - 1.8%
Net Profit Before Tax to Net Worth	9.7%	3.4 - 24.7%
Net Profit Before Tax to Total Assets	5.4%	1.4 - 8.3%
EBIT to Total Assets	7.6%	5.1 - 12.1%
SALES ANALYSIS		
Net Sales($000)	$8,683	$7,567 - 10,490
Percent Sales Change from Prior Year	14.1%	-8.7 - 18.9%
Sales Mix:		
Direct Sales	6.5%	1.0 - 8.7%
Warehouse Sales - Counter and Delivery	93.4%	91.3 - 99.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	77.3%	65.3 - 94.8%
Heating & Cooling Supplies & Equipment	12.8%	0.0 - 25.0%
Industrial P-V-F (Pipes-Valves-Fittings)	5.7%	0.0 - 5.0%
Other Industrial Supplies & Equipment	1.0%	0.0 - 1.0%
Other Products	3.1%	0.0 - 4.5%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	23.9%	20.8 - 27.0%
Gross Margin on Direct Shipments	11.9%	8.0 - 18.3%
Gross Margin on Warehouse Sales	24.0%	23.3 - 26.4%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.12X	2.78 - 3.54X
Total Debt to Net Worth	135.3%	47.2 - 217.7%
Current Debt to Net Worth	96.6%	41.7 - 186.5%
Current Assets to Current Debt	2.36X	1.56 - 3.08X
Current Assets Minus Inventory/Curr Debt	0.86X	0.63 - 1.33X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	5.0 - 10.0
Average Invoice Size	$157	$97 - 246
Average Billing Line	$24.61	$18.37 - 34.99

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $7,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$185,174	$167,745 - 236,460
Gross Margin Per Employee	$45,604	$40,698 - 52,071
Average Compensation Per Employee	$23,429	$20,496 - 25,647
Average Fringe Benefits Per Employee	$3,443	$2,608 - 4,965
Compensation & Fringes Per Employee	$26,041	$23,263 - 29,610
Payroll to Net Sales	11.9%	10.3 - 13.3%
Fringe Benefits to Net Sales	1.9%	1.6 - 2.4%
Payroll & Fringes to Net Sales	13.7%	10.5 - 15.4%
Payroll to Gross Margin	50.3%	44.9 - 54.2%
Fringe Benefits to Gross Margin	8.1%	6.2 - 9.8%
Payroll & Fringes to Gross Margin	55.9%	50.9 - 62.0%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.88X	3.53 - 4.47X
% of Whse Sales from Non-Stock Items	9.0%	5.0 - 15.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.43X	2.95 - 4.05X
No. of Days Average Inventory Carried	94 Days	82 - 103 Days
Total Cost of Goods Sold to Ave Inventory	3.87X	3.40 - 5.14X
Whse Gross Margin Return on Ave Inventory	127%	113 - 148%
Turn & Earn Profitability Index	95%	87 - 111%
Percent of Firms on LIFO	59.1%	
ACCOUNTS RECEIVABLE		
Average Collection Period	46 Days	40 - 55 Days
Gross Margin Return on Receivables	194%	146 - 211%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	71.0%	62.1 - 84.0%
31-60 Days Outstanding	13.5%	8.3 - 17.4%
61-90 Days Outstanding	7.2%	3.1 - 9.5%
Over 90 Days Outstanding	8.3%	5.1 - 11.8%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$940	$502 - 1,361
31-60 Days Outstanding	$1,488	$634 - 2,267
61-90 Days Outstanding	$1,146	$651 - 1,747
Over 90 Days Outstanding	$1,485	$846 - 2,155
Total	$888	$639 - 1,507
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	77.4%	66.2 - 88.4%
31-60 Days Outstanding	10.8%	6.6 - 15.6%
61-90 Days Outstanding	4.9%	2.4 - 6.6%
Over 90 Days Outstanding	6.9%	1.9 - 12.7%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $7,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.1%	73.0 - 79.2%
Gross Margin	23.9%	20.8 - 27.0%
Operating Expenses:		
Selling Expenses	5.2%	4.7 - 6.6%
Delivery Expenses	1.5%	0.8 - 2.0%
Warehouse Expenses	3.5%	1.7 - 4.6%
General & Administrative Expenses	9.2%	7.0 - 10.2%
Occupancy Expenses	2.6%	1.8 - 3.4%
Other Operating Expenses	0.2%	0.0 - 0.4%
Total Operating Expenses	22.3%	18.8 - 25.5%
Net Operating Profit	1.6%	0.6 - 3.1%
Non-Operating Income	2.0%	0.6 - 3.4%
Non-Operating Expenses	2.1%	1.1 - 2.7%
Net Profit Before Tax	1.5%	0.4 - 2.6%
Net Profit After Tax	1.2%	0.3 - 1.8%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.3%	18.8 - 25.5%
Total Operating Expense to Gross Margin	93.6%	86.4 - 97.1%
Non-People Expense to Net Sales	8.7%	7.5 - 10.5%
Non-People Expense to Gross Margin	36.7%	32.5 - 41.2%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.1%	0.6 - 1.6%
Times Interest Earned	2.4X	1.3 - 4.9X
BALANCE SHEET		
Cash	3.1%	0.6 - 4.3%
Accounts & Notes Receivable, Trade(Net)	32.1%	23.6 - 38.5%
Inventory	49.7%	42.9 - 58.6%
Other Current Assets	2.6%	0.6 - 4.1%
Total Current Assets	87.5%	81.2 - 94.5%
All Other Assets	12.5%	5.5 - 18.8%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	41.7%	26.2 - 63.1%
Total Long-Term Liabilities	8.8%	0.9 - 11.8%
Total Liabilities	50.5%	30.0 - 69.1%
Total Net Worth	49.5%	30.9 - 70.0%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	9.5%	1.7 - 15.3%
Total Assets to Net Worth	2.6X	1.8 - 4.6X
Net Profit After Tax to Total Assets	3.2%	0.8 - 4.9%
Net Sales to Total Assets	2.7X	2.3 - 3.0X
Net Profit After Tax to Net Sales	0.9%	0.3 - 1.6%
Net Profit Before Tax to Net Worth	15.5%	4.2 - 25.6%
Net Profit Before Tax to Total Assets	4.8%	1.5 - 8.2%
EBIT to Total Assets	8.2%	3.5 - 11.4%
SALES ANALYSIS		
Net Sales($000)	$20,724	$15,480 - 33,842
Percent Sales Change from Prior Year	10.9%	3.9 - 15.6%
Sales Mix:		
Direct Sales	11.5%	7.0 - 14.5%
Warehouse Sales - Counter and Delivery	88.5%	85.5 - 93.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	72.9%	60.0 - 86.0%
Heating & Cooling Supplies & Equipment	13.2%	2.0 - 24.0%
Industrial P-V-F (Pipes-Valves-Fittings)	8.4%	0.0 - 10.0%
Other Industrial Supplies & Equipment	1.2%	0.0 - 2.0%
Other Products	4.3%	0.0 - 5.4%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	22.4%	20.2 - 24.5%
Gross Margin on Direct Shipments	10.9%	8.9 - 12.9%
Gross Margin on Warehouse Sales	23.9%	22.1 - 26.4%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.00X	2.70 - 3.47X
Total Debt to Net Worth	154.1%	81.2 - 343.9%
Current Debt to Net Worth	130.8%	45.3 - 266.3%
Current Assets to Current Debt	2.26X	1.37 - 3.52X
Current Assets Minus Inventory/Curr Debt	0.86X	0.58 - 1.50X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.1	4.6 - 7.0
Average Invoice Size	$172	$134 - 254
Average Billing Line	$34.41	$26.72 - 44.56

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$226,566	$191,667 - 267,232
Gross Margin Per Employee	$50,567	$43,288 - 60,880
Average Compensation Per Employee	$24,369	$22,459 - 28,075
Average Fringe Benefits Per Employee	$4,847	$3,673 - 5,845
Compensation & Fringes Per Employee	$28,613	$25,889 - 33,600
Payroll to Net Sales	10.8%	9.1 - 12.0%
Fringe Benefits to Net Sales	1.9%	1.7 - 2.6%
Payroll & Fringes to Net Sales	12.6%	10.6 - 13.8%
Payroll to Gross Margin	48.4%	43.7 - 51.9%
Fringe Benefits to Gross Margin	9.2%	7.5 - 11.5%
Payroll & Fringes to Gross Margin	56.2%	49.1 - 61.5%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.82X	3.04 - 4.95X
% of Whse Sales from Non-Stock Items	8.2%	5.0 - 15.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.21X	2.68 - 4.29X
No. of Days Average Inventory Carried	96 Days	74 - 120 Days
Total Cost of Goods Sold to Ave Inventory	4.33X	3.71 - 5.61X
Whse Gross Margin Return on Ave Inventory	124%	102 - 144%
Turn & Earn Profitability Index	97%	77 - 111%
Percent of Firms on LIFO	78.4%	
ACCOUNTS RECEIVABLE		
Average Collection Period	52 Days	43 - 56 Days
Gross Margin Return on Receivables	165%	139 - 186%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	65.1%	57.8 - 75.3%
31-60 Days Outstanding	17.8%	14.6 - 21.4%
61-90 Days Outstanding	6.9%	5.6 - 9.2%
Over 90 Days Outstanding	10.1%	5.8 - 15.3%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,830	$1,217 - 4,035
31-60 Days Outstanding	$2,122	$1,524 - 4,035
61-90 Days Outstanding	$2,163	$1,145 - 4,498
Over 90 Days Outstanding	$2,154	$1,218 - 3,947
Total	$1,920	$1,456 - 3,524
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	67.6%	50.6 - 81.6%
31-60 Days Outstanding	17.2%	9.1 - 23.0%
61-90 Days Outstanding	6.9%	2.7 - 8.9%
Over 90 Days Outstanding	8.3%	3.3 - 13.9%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	77.6%	75.5 - 79.8%
Gross Margin	22.4%	20.2 - 24.5%
Operating Expenses:		
Selling Expenses	5.6%	4.1 - 7.2%
Delivery Expenses	1.6%	1.1 - 2.1%
Warehouse Expenses	3.0%	2.3 - 3.4%
General & Administrative Expenses	8.2%	6.1 - 10.3%
Occupancy Expenses	2.0%	1.2 - 2.8%
Other Operating Expenses	0.7%	0.0 - 0.6%
Total Operating Expenses	21.1%	17.7 - 23.1%
Net Operating Profit	1.3%	0.4 - 3.1%
Non-Operating Income	2.0%	1.3 - 2.6%
Non-Operating Expenses	2.3%	1.3 - 2.8%
Net Profit Before Tax	0.9%	0.1 - 2.3%
Net Profit After Tax	0.9%	0.3 - 1.6%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	21.1%	17.7 - 23.1%
Total Operating Expense to Gross Margin	95.5%	86.0 - 98.5%
Non-People Expense to Net Sales	7.7%	6.7 - 9.0%
Non-People Expense to Gross Margin	34.2%	28.9 - 37.1%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.3%	0.7 - 1.5%
Times Interest Earned	2.6X	1.4 - 3.7X
BALANCE SHEET		
Cash	3.0%	0.6 - 4.2%
Accounts & Notes Receivable, Trade(Net)	32.8%	27.0 - 37.1%
Inventory	48.4%	42.9 - 57.0%
Other Current Assets	1.7%	0.6 - 2.5%
Total Current Assets	85.9%	79.6 - 94.6%
All Other Assets	14.1%	5.6 - 20.4%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	45.9%	24.1 - 64.0%
Total Long-Term Liabilities	15.1%	5.6 - 19.0%
Total Liabilities	61.0%	44.1 - 78.6%
Total Net Worth	39.0%	21.4 - 55.8%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	12.7%	8.2 - 21.0%
Total Assets to Net Worth	1.8X	1.4 - 3.0X
Net Profit After Tax to Total Assets	7.0%	4.8 - 8.3%
Net Sales to Total Assets	2.7X	2.1 - 3.0X
Net Profit After Tax to Net Sales	2.6%	1.9 - 3.4%
Net Profit Before Tax to Net Worth	20.7%	12.7 - 30.5%
Net Profit Before Tax to Total Assets	9.1%	6.9 - 13.8%
EBIT to Total Assets	11.8%	8.6 - 15.7%
SALES ANALYSIS		
Net Sales($000)	$5,307	$2,761 - 8,192
Percent Sales Change from Prior Year	11.2%	4.3 - 19.3%
Sales Mix:		
Direct Sales	8.9%	1.9 - 13.2%
Warehouse Sales - Counter and Delivery	91.1%	86.8 - 98.1%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	77.1%	64.5 - 94.3%
Heating & Cooling Supplies & Equipment	11.9%	0.0 - 1.1%
Industrial P-V-F (Pipes-Valves-Fittings)	5.9%	0.0 - 8.0%
Other Industrial Supplies & Equipment	1.0%	0.0 - 0.3%
Other Products	4.0%	0.0 - 2.8%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.6%	21.9 - 27.0%
Gross Margin on Direct Shipments	10.2%	7.5 - 13.1%
Gross Margin on Warehouse Sales	24.2%	22.7 - 27.1%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.92X	2.52 - 3.46X
Total Debt to Net Worth	76.2%	36.8 - 190.7%
Current Debt to Net Worth	56.8%	30.9 - 151.7%
Current Assets to Current Debt	2.76X	1.72 - 3.83X
Current Assets Minus Inventory/Curr Debt	1.17X	0.74 - 1.95X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	5.0 - 10.0
Average Invoice Size	$162	$97 - 221
Average Billing Line	$24.25	$17.03 - 35.24

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$209,660	$174,447 - 252,205
Gross Margin Per Employee	$48,314	$43,147 - 60,778
Average Compensation Per Employee	$23,256	$20,922 - 26,245
Average Fringe Benefits Per Employee	$4,346	$3,313 - 5,845
Compensation & Fringes Per Employee	$27,091	$23,413 - 31,420
Payroll to Net Sales	11.1%	9.8 - 13.3%
Fringe Benefits to Net Sales	2.2%	1.6 - 3.0%
Payroll & Fringes to Net Sales	12.6%	10.4 - 15.3%
Payroll to Gross Margin	46.8%	41.8 - 50.9%
Fringe Benefits to Gross Margin	8.8%	7.1 - 10.8%
Payroll & Fringes to Gross Margin	53.5%	45.8 - 58.3%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.86X	3.27 - 5.62X
% of Whse Sales from Non-Stock Items	5.0%	3.3 - 12.5%
Cost of In-Stock Whse Sales/Ave Inventory	3.47X	2.91 - 4.62X
No. of Days Average Inventory Carried	95 Days	65 - 112 Days
Total Cost of Goods Sold to Ave Inventory	4.17X	3.51 - 5.75X
Whse Gross Margin Return on Ave Inventory	125%	107 - 177%
Turn & Earn Profitability Index	95%	82 - 133%
Percent of Firms on LIFO	55.7%	
ACCOUNTS RECEIVABLE		
Average Collection Period	48 Days	42 - 55 Days
Gross Margin Return on Receivables	174%	151 - 216%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	67.5%	58.9 - 76.6%
31-60 Days Outstanding	17.2%	13.9 - 21.7%
61-90 Days Outstanding	7.4%	4.5 - 9.6%
Over 90 Days Outstanding	7.9%	3.4 - 12.2%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,022	$615 - 1,990
31-60 Days Outstanding	$1,268	$693 - 2,078
61-90 Days Outstanding	$1,126	$550 - 2,139
Over 90 Days Outstanding	$1,178	$629 - 2,307
Total	$1,160	$845 - 1,874
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	71.4%	63.4 - 83.9%
31-60 Days Outstanding	15.4%	9.7 - 19.4%
61-90 Days Outstanding	6.9%	3.5 - 9.3%
Over 90 Days Outstanding	6.3%	2.6 - 8.2%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.4%	73.0 - 78.1%
Gross Margin	24.6%	21.9 - 27.0%
Operating Expenses:		
Selling Expenses	5.8%	4.3 - 7.0%
Delivery Expenses	1.9%	1.2 - 2.6%
Warehouse Expenses	2.8%	1.8 - 3.9%
General & Administrative Expenses	8.1%	6.2 - 9.6%
Occupancy Expenses	2.0%	1.1 - 2.8%
Other Operating Expenses	0.5%	0.0 - 0.5%
Total Operating Expenses	21.1%	18.8 - 23.4%
Net Operating Profit	3.5%	2.2 - 4.3%
Non-Operating Income	1.9%	1.0 - 2.6%
Non-Operating Expenses	1.4%	0.3 - 2.1%
Net Profit Before Tax	4.0%	2.7 - 5.1%
Net Profit After Tax	2.6%	1.9 - 3.4%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	21.1%	18.8 - 23.4%
Total Operating Expense to Gross Margin	85.8%	81.9 - 90.8%
Non-People Expense to Net Sales	7.5%	5.6 - 9.3%
Non-People Expense to Gross Margin	30.4%	23.4 - 35.6%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.6%	0.2 - 1.1%
Times Interest Earned	7.4X	4.2 - 15.5X
BALANCE SHEET		
Cash	8.5%	1.6 - 13.4%
Accounts & Notes Receivable, Trade(Net)	31.4%	23.6 - 37.3%
Inventory	46.0%	40.8 - 53.5%
Other Current Assets	1.6%	0.2 - 1.7%
Total Current Assets	87.6%	83.9 - 92.8%
All Other Assets	12.5%	7.2 - 16.1%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	36.6%	22.2 - 53.4%
Total Long-Term Liabilities	8.2%	0.8 - 11.7%
Total Liabilities	44.8%	26.9 - 65.6%
Total Net Worth	55.0%	34.4 - 72.8%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

INDUSTRIAL P-V-F FIRMS

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	7.1%	-0.6 - 11.2%
Total Assets to Net Worth	1.8X	1.5 - 3.2X
Net Profit After Tax to Total Assets	2.8%	-1.4 - 5.9%
Net Sales to Total Assets	2.7X	2.1 - 3.1X
Net Profit After Tax to Net Sales	1.0%	-0.7 - 2.1%
Net Profit Before Tax to Net Worth	10.7%	0.7 - 16.8%
Net Profit Before Tax to Total Assets	5.0%	-1.3 - 8.5%
EBIT to Total Assets	6.8%	1.9 - 9.8%
SALES ANALYSIS		
Net Sales($000)	$6,918	$3,845 - 19,184
Percent Sales Change from Prior Year	0.1%	-10.5 - 6.6%
Sales Mix:		
Direct Sales	14.6%	7.2 - 21.8%
Warehouse Sales - Counter and Delivery	85.4%	78.2 - 92.8%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	6.3%	0.0 - 8.0%
Heating & Cooling Supplies & Equipment	1.9%	0.0 - 1.9%
Industrial P-V-F (Pipes-Valves-Fittings)	85.5%	71.5 - 100.0%
Other Industrial Supplies & Equipment	3.2%	0.0 - 3.2%
Other Products	3.1%	0.0 - 3.1%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	27.4%	22.0 - 28.6%
Gross Margin on Direct Shipments	11.7%	9.9 - 20.0%
Gross Margin on Warehouse Sales	27.7%	24.5 - 30.5%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.13X	2.53 - 3.59X
Total Debt to Net Worth	80.7%	45.2 - 176.5%
Current Debt to Net Worth	58.6%	32.8 - 126.9%
Current Assets to Current Debt	2.77X	1.64 - 3.86X
Current Assets Minus Inventory/Curr Debt	1.23X	0.75 - 1.68X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.4	3.7 - 5.2
Average Invoice Size	$273	$222 - 440
Average Billing Line	$59.88	$46.56 - 83.22

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$205,236	$167,915 - 231,832
Gross Margin Per Employee	$50,463	$44,252 - 58,606
Average Compensation Per Employee	$25,658	$22,099 - 28,203
Average Fringe Benefits Per Employee	$4,110	$3,607 - 5,280
Compensation & Fringes Per Employee	$30,004	$25,035 - 33,400
Payroll to Net Sales	12.8%	11.1 - 14.2%
Fringe Benefits to Net Sales	2.2%	1.7 - 3.2%
Payroll & Fringes to Net Sales	14.6%	12.1 - 17.1%
Payroll to Gross Margin	50.1%	45.1 - 54.4%
Fringe Benefits to Gross Margin	8.0%	6.5 - 11.8%
Payroll & Fringes to Gross Margin	57.5%	50.4 - 64.8%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.34X	2.66 - 3.68X
% of Whse Sales from Non-Stock Items	20.0%	10.0 - 32.4%
Cost of In-Stock Whse Sales/Ave Inventory	2.55X	2.03 - 3.21X
No. of Days Average Inventory Carried	109 Days	99 - 137 Days
Total Cost of Goods Sold to Ave Inventory	4.23X	3.28 - 5.34X
Whse Gross Margin Return on Ave Inventory	127%	98 - 155%
Turn & Earn Profitability Index	84%	61 - 108%
Percent of Firms on LIFO	68.4%	
ACCOUNTS RECEIVABLE		
Average Collection Period	43 Days	37 - 57 Days
Gross Margin Return on Receivables	199%	159 - 275%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	67.0%	55.9 - 77.0%
31-60 Days Outstanding	17.8%	14.1 - 23.3%
61-90 Days Outstanding	6.4%	2.7 - 9.1%
Over 90 Days Outstanding	8.8%	1.7 - 12.6%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$2,276	$1,080 - 3,177
31-60 Days Outstanding	$1,716	$806 - 3,570
61-90 Days Outstanding	$1,071	$401 - 1,907
Over 90 Days Outstanding	$1,629	$691 - 3,494
Total	$1,877	$886 - 3,335
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	61.9%	53.0 - 69.4%
31-60 Days Outstanding	22.1%	17.1 - 26.6%
61-90 Days Outstanding	8.6%	6.3 - 11.6%
Over 90 Days Outstanding	7.4%	4.0 - 10.4%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	72.6%	71.4 - 78.0%
Gross Margin	27.4%	22.0 - 28.6%
Operating Expenses:		
Selling Expenses	7.9%	6.3 - 9.9%
Delivery Expenses	2.1%	1.3 - 2.8%
Warehouse Expenses	3.3%	1.6 - 3.8%
General & Administrative Expenses	9.9%	7.1 - 10.7%
Occupancy Expenses	2.0%	0.9 - 2.0%
Other Operating Expenses	0.2%	0.0 - 0.1%
Total Operating Expenses	25.3%	20.9 - 25.9%
Net Operating Profit	2.1%	0.1 - 3.5%
Non-Operating Income	1.3%	0.6 - 1.7%
Non-Operating Expenses	1.7%	1.0 - 2.4%
Net Profit Before Tax	1.7%	-0.6 - 3.2%
Net Profit After Tax	1.0%	-0.7 - 2.1%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	25.3%	20.9 - 25.9%
Total Operating Expense to Gross Margin	93.8%	85.5 - 100.0%
Non-People Expense to Net Sales	9.9%	6.6 - 10.3%
Non-People Expense to Gross Margin	34.1%	27.2 - 42.1%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.3 - 1.5%
Times Interest Earned	2.3X	0.6 - 8.7X
BALANCE SHEET		
Cash	4.8%	1.0 - 6.3%
Accounts & Notes Receivable, Trade(Net)	32.7%	26.1 - 40.3%
Inventory	44.3%	38.2 - 51.2%
Other Current Assets	2.1%	0.4 - 2.4%
Total Current Assets	83.9%	76.6 - 92.8%
All Other Assets	16.1%	7.1 - 23.4%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	35.0%	21.6 - 47.6%
Total Long-Term Liabilities	14.1%	1.4 - 23.0%
Total Liabilities	49.1%	31.1 - 68.8%
Total Net Worth	50.9%	31.2 - 68.9%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES UNDER $4,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	7.2%	-4.0 - 13.0%
Total Assets to Net Worth	1.5X	1.3 - 2.8X
Net Profit After Tax to Total Assets	4.2%	-5.1 - 7.4%
Net Sales to Total Assets	2.5X	1.9 - 2.9X
Net Profit After Tax to Net Sales	1.6%	-2.2 - 2.7%
Net Profit Before Tax to Net Worth	12.4%	-4.0 - 22.4%
Net Profit Before Tax to Total Assets	5.7%	-4.7 - 10.1%
EBIT to Total Assets	3.7%	-2.4 - 10.1%
SALES ANALYSIS		
Net Sales($000)	$2,579	$2,011 - 3,333
Percent Sales Change from Prior Year	-6.3%	-15.5 - 2.8%
Sales Mix:		
Direct Sales	13.0%	3.7 - 22.3%
Warehouse Sales - Counter and Delivery	87.0%	77.8 - 96.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	3.6%	0.0 - 6.3%
Heating & Cooling Supplies & Equipment	0.0%	0.0 - 0.0%
Industrial P-V-F (Pipes-Valves-Fittings)	87.5%	77.5 - 100.0%
Other Industrial Supplies & Equipment	4.2%	0.0 - 7.5%
Other Products	4.7%	0.0 - 2.5%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	32.1%	21.2 - 38.8%
Gross Margin on Direct Shipments	21.0%	10.2 - 26.9%
Gross Margin on Warehouse Sales	27.9%	23.3 - 43.2%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.78X	1.99 - 3.76X
Total Debt to Net Worth	45.1%	23.3 - 145.7%
Current Debt to Net Worth	41.2%	19.0 - 75.9%
Current Assets to Current Debt	3.42X	2.08 - 4.81X
Current Assets Minus Inventory/Curr Debt	1.34X	1.07 - 2.52X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	3.5 - 6.3
Average Invoice Size	$275	$213 - 375
Average Billing Line	$56.79	$36.64 - 79.33

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES UNDER $4,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$166,310	$126,624 - 176,902
Gross Margin Per Employee	$41,455	$33,909 - 56,542
Average Compensation Per Employee	$21,102	$19,957 - 24,629
Average Fringe Benefits Per Employee	$4,041	$3,790 - 4,242
Compensation & Fringes Per Employee	$25,048	$21,807 - 29,276
Payroll to Net Sales	14.4%	11.6 - 18.3%
Fringe Benefits to Net Sales	2.4%	2.2 - 3.7%
Payroll & Fringes to Net Sales	15.7%	12.2 - 20.8%
Payroll to Gross Margin	54.6%	37.2 - 64.6%
Fringe Benefits to Gross Margin	9.3%	6.1 - 12.4%
Payroll & Fringes to Gross Margin	61.6%	31.6 - 72.7%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	2.71X	1.19 - 3.70X
% of Whse Sales from Non-Stock Items	20.0%	10.0 - 31.5%
Cost of In-Stock Whse Sales/Ave Inventory	2.16X	0.84 - 2.58X
No. of Days Average Inventory Carried	135 Days	99 - 306 Days
Total Cost of Goods Sold to Ave Inventory	3.29X	2.01 - 6.54X
Whse Gross Margin Return on Ave Inventory	108%	81 - 180%
Turn & Earn Profitability Index	63%	54 - 105%
Percent of Firms on LIFO	55.6%	
ACCOUNTS RECEIVABLE		
Average Collection Period	38 Days	35 - 57 Days
Gross Margin Return on Receivables	254%	165 - 283%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	72.3%	65.4 - 80.4%
31-60 Days Outstanding	18.6%	15.4 - 21.3%
61-90 Days Outstanding	4.5%	1.8 - 6.8%
Over 90 Days Outstanding	4.5%	0.3 - 3.6%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,003	$823 - 2,276
31-60 Days Outstanding	$829	$318 - 1,542
61-90 Days Outstanding	$329	$226 - 1,446
Over 90 Days Outstanding	$691	Insufficient Data
Total	$866	$750 - 1,804
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	63.4%	60.0 - 69.3%
31-60 Days Outstanding	25.3%	21.7 - 26.7%
61-90 Days Outstanding	7.8%	4.3 - 11.7%
Over 90 Days Outstanding	3.5%	1.3 - 7.8%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES UNDER $4,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	67.9%	61.2 - 78.8%
Gross Margin	32.1%	21.2 - 38.8%
Operating Expenses:		
Selling Expenses	9.0%	5.8 - 12.9%
Delivery Expenses	2.5%	1.4 - 3.4%
Warehouse Expenses	4.1%	2.2 - 5.4%
General & Administrative Expenses	11.1%	8.5 - 13.4%
Occupancy Expenses	3.3%	0.6 - 4.8%
Other Operating Expenses	0.4%	0.0 - 0.5%
Total Operating Expenses	30.4%	23.1 - 34.4%
Net Operating Profit	1.6%	-3.3 - 7.0%
Non-Operating Income	1.7%	0.8 - 3.3%
Non-Operating Expenses	1.7%	0.2 - 2.8%
Net Profit Before Tax	1.7%	-2.2 - 4.4%
Net Profit After Tax	1.6%	-2.2 - 2.7%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	30.4%	23.1 - 34.4%
Total Operating Expense to Gross Margin	99.1%	84.2 - 113.3%
Non-People Expense to Net Sales	13.8%	8.5 - 21.3%
Non-People Expense to Gross Margin	38.7%	29.9 - 49.7%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.2 - 2.3%
Times Interest Earned	1.2X	-1.7 - 10.2X
BALANCE SHEET		
Cash	9.9%	1.0 - 18.0%
Accounts & Notes Receivable, Trade(Net)	28.2%	17.3 - 41.2%
Inventory	41.7%	34.1 - 51.3%
Other Current Assets	3.9%	0.8 - 7.3%
Total Current Assets	83.7%	68.7 - 96.8%
All Other Assets	16.3%	3.2 - 31.3%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	29.3%	16.2 - 38.9%
Total Long-Term Liabilities	13.6%	0.0 - 31.9%
Total Liabilities	42.9%	20.0 - 63.7%
Total Net Worth	57.1%	36.3 - 80.0%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES $4,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	9.4%	-0.2 - 11.7%
Total Assets to Net Worth	1.8X	1.4 - 3.4X
Net Profit After Tax to Total Assets	3.6%	0.2 - 5.9%
Net Sales to Total Assets	3.1X	2.6 - 3.4X
Net Profit After Tax to Net Sales	1.1%	0.2 - 2.1%
Net Profit Before Tax to Net Worth	10.7%	0.4 - 18.4%
Net Profit Before Tax to Total Assets	6.0%	0.6 - 8.0%
EBIT to Total Assets	7.6%	2.8 - 9.8%
SALES ANALYSIS		
Net Sales($000)	$6,101	$5,003 - 7,684
Percent Sales Change from Prior Year	6.6%	-13.0 - 17.8%
Sales Mix:		
Direct Sales	10.3%	2.5 - 20.3%
Warehouse Sales - Counter and Delivery	89.7%	79.7 - 97.5%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	8.1%	0.0 - 12.5%
Heating & Cooling Supplies & Equipment	2.7%	0.0 - 2.7%
Industrial P-V-F (Pipes-Valves-Fittings)	82.5%	60.0 - 100.0%
Other Industrial Supplies & Equipment	3.0%	0.0 - 1.3%
Other Products	3.7%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	27.3%	23.8 - 29.0%
Gross Margin on Direct Shipments	11.6%	Insufficient Data
Gross Margin on Warehouse Sales	30.3%	27.8 - 31.2%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.54X	3.02 - 4.14X
Total Debt to Net Worth	82.4%	44.9 - 235.9%
Current Debt to Net Worth	73.9%	32.1 - 166.5%
Current Assets to Current Debt	2.09X	1.61 - 3.83X
Current Assets Minus Inventory/Curr Debt	1.15X	0.73 - 1.61X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	4.0 - 6.5
Average Invoice Size	$248	$200 - 487
Average Billing Line	$53.02	$39.33 - 72.39

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES $4,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$206,706	$192,006 - 220,633
Gross Margin Per Employee	$55,547	$51,062 - 58,681
Average Compensation Per Employee	$28,018	$26,921 - 28,937
Average Fringe Benefits Per Employee	$4,081	$3,377 - 5,206
Compensation & Fringes Per Employee	$31,870	$30,113 - 33,795
Payroll to Net Sales	13.9%	12.8 - 15.0%
Fringe Benefits to Net Sales	2.2%	1.6 - 3.4%
Payroll & Fringes to Net Sales	16.1%	13.7 - 17.9%
Payroll to Gross Margin	50.1%	46.6 - 53.3%
Fringe Benefits to Gross Margin	7.3%	6.5 - 9.6%
Payroll & Fringes to Gross Margin	57.5%	53.2 - 62.0%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.27X	2.44 - 5.01X
% of Whse Sales from Non-Stock Items	36.2%	13.3 - 50.0%
Cost of In-Stock Whse Sales/Ave Inventory	2.46X	2.07 - 2.78X
No. of Days Average Inventory Carried	112 Days	73 - 151 Days
Total Cost of Goods Sold to Ave Inventory	4.45X	3.33 - 7.66X
Whse Gross Margin Return on Ave Inventory	134%	122 - 199%
Turn & Earn Profitability Index	93%	71 - 154%
Percent of Firms on LIFO	57.1%	
ACCOUNTS RECEIVABLE		
Average Collection Period	41 Days	34 - 47 Days
Gross Margin Return on Receivables	234%	172 - 322%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	71.9%	64.5 - 81.3%
31-60 Days Outstanding	16.1%	13.0 - 18.2%
61-90 Days Outstanding	5.8%	2.3 - 9.0%
Over 90 Days Outstanding	6.3%	1.8 - 11.1%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$2,248	$1,080 - 2,661
31-60 Days Outstanding	$1,948	$514 - 3,612
61-90 Days Outstanding	$525	$387 - 2,054
Over 90 Days Outstanding	$1,212	$827 - 1,997
Total	$1,667	$812 - 2,549
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	67.6%	57.4 - 75.8%
31-60 Days Outstanding	16.8%	10.3 - 22.7%
61-90 Days Outstanding	8.5%	5.1 - 11.0%
Over 90 Days Outstanding	7.2%	4.6 - 10.5%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES $4,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	72.7%	71.0 - 76.2%
Gross Margin	27.3%	23.8 - 29.0%
Operating Expenses:		
Selling Expenses	7.6%	6.0 - 10.0%
Delivery Expenses	2.0%	0.9 - 2.8%
Warehouse Expenses	2.5%	0.7 - 3.3%
General & Administrative Expenses	11.4%	7.4 - 14.7%
Occupancy Expenses	1.6%	1.0 - 1.8%
Other Operating Expenses	0.0%	0.0 - 0.0%
Total Operating Expenses	25.1%	20.5 - 26.0%
Net Operating Profit	2.2%	0.9 - 4.0%
Non-Operating Income	1.0%	0.3 - 1.5%
Non-Operating Expenses	1.6%	1.3 - 2.0%
Net Profit Before Tax	1.6%	0.0 - 3.2%
Net Profit After Tax	1.1%	0.2 - 2.1%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	25.1%	20.5 - 26.0%
Total Operating Expense to Gross Margin	92.4%	83.9 - 96.7%
Non-People Expense to Net Sales	9.4%	6.4 - 11.0%
Non-People Expense to Gross Margin	32.5%	25.7 - 40.6%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.5%	0.2 - 1.3%
Times Interest Earned	4.1X	1.3 - 21.2X
BALANCE SHEET		
Cash	3.4%	0.0 - 5.3%
Accounts & Notes Receivable, Trade(Net)	34.7%	25.4 - 43.6%
Inventory	45.7%	37.0 - 58.7%
Other Current Assets	1.5%	0.4 - 2.1%
Total Current Assets	85.3%	78.5 - 93.0%
All Other Assets	14.7%	7.0 - 21.5%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	38.0%	23.3 - 48.9%
Total Long-Term Liabilities	10.2%	3.3 - 20.7%
Total Liabilities	48.2%	31.0 - 70.1%
Total Net Worth	51.8%	29.9 - 69.0%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	4.5%	1.4 - 11.1%
Total Assets to Net Worth	2.3X	1.6 - 3.9X
Net Profit After Tax to Total Assets	2.5%	0.4 - 4.9%
Net Sales to Total Assets	2.4X	2.1 - 2.8X
Net Profit After Tax to Net Sales	0.8%	0.3 - 2.1%
Net Profit Before Tax to Net Worth	7.6%	2.2 - 16.7%
Net Profit Before Tax to Total Assets	3.2%	0.7 - 8.1%
EBIT to Total Assets	6.1%	2.6 - 10.1%
SALES ANALYSIS		
Net Sales($000)	$21,133	$14,818 - 36,600
Percent Sales Change from Prior Year	1.0%	-3.2 - 3.5%
Sales Mix:		
Direct Sales	18.3%	12.2 - 25.7%
Warehouse Sales - Counter and Delivery	81.7%	74.3 - 87.8%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	6.3%	0.0 - 8.0%
Heating & Cooling Supplies & Equipment	2.4%	0.0 - 4.0%
Industrial P-V-F (Pipes-Valves-Fittings)	87.0%	80.0 - 100.0%
Other Industrial Supplies & Equipment	2.8%	0.0 - 2.7%
Other Products	1.5%	0.0 - 1.5%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	23.9%	22.0 - 26.9%
Gross Margin on Direct Shipments	11.6%	7.0 - 15.3%
Gross Margin on Warehouse Sales	25.4%	22.2 - 28.1%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.00X	2.53 - 3.34X
Total Debt to Net Worth	131.9%	61.4 - 291.4%
Current Debt to Net Worth	61.4%	43.1 - 145.5%
Current Assets to Current Debt	2.77X	1.59 - 3.71X
Current Assets Minus Inventory/Curr Debt	1.40X	0.72 - 1.64X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.0	3.4 - 4.8
Average Invoice Size	$333	$245 - 456
Average Billing Line	$77.54	$59.88 - 95.22

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$229,420	$207,042 - 267,510
Gross Margin Per Employee	$49,952	$46,435 - 59,605
Average Compensation Per Employee	$24,398	$22,414 - 28,827
Average Fringe Benefits Per Employee	$4,144	$3,604 - 6,575
Compensation & Fringes Per Employee	$27,411	$26,124 - 35,527
Payroll to Net Sales	11.4%	9.3 - 12.8%
Fringe Benefits to Net Sales	1.9%	1.5 - 2.9%
Payroll & Fringes to Net Sales	13.2%	11.1 - 15.4%
Payroll to Gross Margin	47.3%	42.1 - 52.9%
Fringe Benefits to Gross Margin	8.5%	7.0 - 13.3%
Payroll & Fringes to Gross Margin	56.7%	49.5 - 64.8%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.40X	2.95 - 3.65X
% of Whse Sales from Non-Stock Items	18.3%	5.1 - 26.9%
Cost of In-Stock Whse Sales/Ave Inventory	2.79X	2.52 - 3.63X
No. of Days Average Inventory Carried	107 Days	100 - 125 Days
Total Cost of Goods Sold to Ave Inventory	4.41X	3.46 - 5.03X
Whse Gross Margin Return on Ave Inventory	116%	80 - 145%
Turn & Earn Profitability Index	88%	62 - 104%
Percent of Firms on LIFO	86.7%	
ACCOUNTS RECEIVABLE		
Average Collection Period	48 Days	42 - 69 Days
Gross Margin Return on Receivables	181%	148 - 204%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	60.3%	48.4 - 74.0%
31-60 Days Outstanding	18.9%	13.9 - 24.5%
61-90 Days Outstanding	7.8%	3.3 - 11.0%
Over 90 Days Outstanding	13.0%	3.5 - 16.8%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$2,871	$2,345 - 4,462
31-60 Days Outstanding	$2,174	$1,552 - 4,421
61-90 Days Outstanding	$1,238	$1,051 - 5,514
Over 90 Days Outstanding	$2,153	$1,125 - 7,895
Total	$3,063	$1,801 - 5,544
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	55.6%	49.7 - 62.6%
31-60 Days Outstanding	24.3%	18.1 - 30.2%
61-90 Days Outstanding	9.4%	6.4 - 11.9%
Over 90 Days Outstanding	10.7%	6.2 - 13.7%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.1%	73.1 - 78.0%
Gross Margin	23.9%	22.0 - 26.9%
Operating Expenses:		
Selling Expenses	7.3%	6.5 - 8.2%
Delivery Expenses	1.9%	1.3 - 2.7%
Warehouse Expenses	3.3%	2.0 - 3.7%
General & Administrative Expenses	7.5%	5.5 - 9.2%
Occupancy Expenses	1.4%	0.9 - 1.7%
Other Operating Expenses	0.2%	0.0 - 0.2%
Total Operating Expenses	21.6%	19.5 - 23.6%
Net Operating Profit	2.2%	0.5 - 3.0%
Non-Operating Income	1.4%	0.7 - 1.9%
Non-Operating Expenses	1.8%	1.2 - 2.5%
Net Profit Before Tax	1.8%	0.5 - 2.8%
Net Profit After Tax	0.8%	0.3 - 2.1%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	21.6%	19.5 - 23.6%
Total Operating Expense to Gross Margin	91.5%	87.6 - 97.9%
Non-People Expense to Net Sales	7.6%	6.6 - 8.3%
Non-People Expense to Gross Margin	32.4%	27.2 - 42.1%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.8%	0.4 - 1.6%
Times Interest Earned	2.6X	1.1 - 6.9X
BALANCE SHEET		
Cash	2.6%	1.0 - 4.0%
Accounts & Notes Receivable, Trade(Net)	34.0%	29.3 - 39.1%
Inventory	44.9%	40.1 - 51.2%
Other Current Assets	1.3%	0.4 - 2.2%
Total Current Assets	82.7%	75.9 - 91.5%
All Other Assets	17.3%	8.5 - 24.1%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	36.1%	21.1 - 56.8%
Total Long-Term Liabilities	18.1%	2.3 - 32.1%
Total Liabilities	54.2%	38.0 - 74.4%
Total Net Worth	45.8%	25.5 - 62.0%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	11.2%	8.1 - 15.3%
Total Assets to Net Worth	1.8X	1.5 - 2.6X
Net Profit After Tax to Total Assets	6.0%	4.1 - 8.3%
Net Sales to Total Assets	2.9X	2.4 - 3.3X
Net Profit After Tax to Net Sales	2.2%	1.4 - 2.8%
Net Profit Before Tax to Net Worth	16.4%	12.4 - 28.4%
Net Profit Before Tax to Total Assets	8.5%	6.5 - 12.1%
EBIT to Total Assets	10.1%	8.9 - 16.6%
SALES ANALYSIS		
Net Sales($000)	$6,552	$2,812 - 14,818
Percent Sales Change from Prior Year	2.1%	-6.1 - 13.5%
Sales Mix:		
Direct Sales	14.4%	7.2 - 20.6%
Warehouse Sales - Counter and Delivery	85.6%	79.3 - 92.8%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	8.2%	0.0 - 20.0%
Heating & Cooling Supplies & Equipment	1.1%	0.0 - 0.0%
Industrial P-V-F (Pipes-Valves-Fittings)	83.5%	70.0 - 100.0%
Other Industrial Supplies & Equipment	4.4%	0.0 - 5.0%
Other Products	2.8%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	30.2%	24.4 - 29.5%
Gross Margin on Direct Shipments	12.0%	5.5 - 22.2%
Gross Margin on Warehouse Sales	28.3%	26.9 - 31.5%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.21X	2.78 - 4.09X
Total Debt to Net Worth	77.4%	45.2 - 158.0%
Current Debt to Net Worth	56.9%	41.2 - 92.1%
Current Assets to Current Debt	2.80X	2.08 - 4.12X
Current Assets Minus Inventory/Curr Debt	1.35X	1.03 - 1.64X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	4.0 - 7.0
Average Invoice Size	$258	$204 - 376
Average Billing Line	$56.79	$42.20 - 76.10

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$207,042	$180,448 - 233,988
Gross Margin Per Employee	$56,199	$50,015 - 66,379
Average Compensation Per Employee	$27,608	$23,393 - 30,318
Average Fringe Benefits Per Employee	$4,007	$3,702 - 7,179
Compensation & Fringes Per Employee	$31,609	$25,061 - 35,766
Payroll to Net Sales	12.8%	11.4 - 14.1%
Fringe Benefits to Net Sales	2.2%	1.8 - 3.6%
Payroll & Fringes to Net Sales	14.1%	12.7 - 17.1%
Payroll to Gross Margin	47.9%	44.7 - 51.7%
Fringe Benefits to Gross Margin	7.3%	6.1 - 12.2%
Payroll & Fringes to Gross Margin	57.5%	47.8 - 59.7%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.65X	3.11 - 5.10X
% of Whse Sales from Non-Stock Items	26.5%	8.8 - 46.3%
Cost of In-Stock Whse Sales/Ave Inventory	2.67X	2.19 - 3.68X
No. of Days Average Inventory Carried	100 Days	72 - 117 Days
Total Cost of Goods Sold to Ave Inventory	4.30X	3.80 - 7.77X
Whse Gross Margin Return on Ave Inventory	153%	130 - 192%
Turn & Earn Profitability Index	107%	-84 - 144%
Percent of Firms on LIFO	61.1%	
ACCOUNTS RECEIVABLE		
Average Collection Period	43 Days	39 - 57 Days
Gross Margin Return on Receivables	217%	166 - 266%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	70.9%	65.9 - 80.3%
31-60 Days Outstanding	17.2%	14.0 - 20.6%
61-90 Days Outstanding	6.3%	1.9 - 9.6%
Over 90 Days Outstanding	5.6%	1.7 - 9.5%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$2,262	$1,140 - 3,835
31-60 Days Outstanding	$1,799	$795 - 3,663
61-90 Days Outstanding	$1,105	$361 - 1,772
Over 90 Days Outstanding	$1,824	$782 - 2,505
Total	$1,903	$948 - 3,806
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	65.9%	60.0 - 74.0%
31-60 Days Outstanding	19.9%	14.6 - 25.7%
61-90 Days Outstanding	8.1%	4.7 - 10.8%
Over 90 Days Outstanding	6.2%	2.3 - 9.1%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	69.8%	70.5 - 75.6%
Gross Margin	30.2%	24.4 - 29.5%
Operating Expenses:		
Selling Expenses	8.3%	5.7 - 10.3%
Delivery Expenses	2.1%	1.5 - 2.8%
Warehouse Expenses	2.8%	1.4 - 3.4%
General & Administrative Expenses	10.1%	7.6 - 10.5%
Occupancy Expenses	2.3%	1.0 - 1.8%
Other Operating Expenses	0.2%	0.0 - 0.0%
Total Operating Expenses	25.8%	21.0 - 25.5%
Net Operating Profit	4.4%	2.9 - 6.7%
Non-Operating Income	1.2%	0.6 - 1.5%
Non-Operating Expenses	1.6%	1.2 - 2.2%
Net Profit Before Tax	4.0%	2.0 - 5.7%
Net Profit After Tax	2.2%	1.4 - 2.8%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	25.8%	21.0 - 25.5%
Total Operating Expense to Gross Margin	86.1%	82.1 - 89.0%
Non-People Expense to Net Sales	10.8%	6.4 - 10.5%
Non-People Expense to Gross Margin	32.4%	24.6 - 42.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.5%	0.2 - 1.0%
Times Interest Earned	9.1X	3.3 - 21.5X
BALANCE SHEET		
Cash	5.3%	1.4 - 8.9%
Accounts & Notes Receivable, Trade(Net)	35.5%	26.7 - 43.8%
Inventory	43.2%	36.8 - 51.4%
Other Current Assets	1.6%	0.4 - 2.1%
Total Current Assets	85.5%	79.8 - 93.9%
All Other Assets	14.5%	6.1 - 20.1%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	33.4%	22.8 - 40.1%
Total Long-Term Liabilities	10.7%	0.5 - 21.2%
Total Liabilities	44.1%	31.1 - 61.3%
Total Net Worth	55.9%	38.8 - 68.9%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

PLUMBING SUPPLIES & EQUIPMENT AND INDUSTRIAL P-V-F FIRMS

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	6.4%	2.5 - 10.8%
Total Assets to Net Worth	1.8X	1.5 - 2.6X
Net Profit After Tax to Total Assets	4.1%	1.7 - 5.9%
Net Sales to Total Assets	2.6X	2.2 - 2.9X
Net Profit After Tax to Net Sales	1.4%	0.6 - 2.4%
Net Profit Before Tax to Net Worth	10.8%	4.9 - 19.4%
Net Profit Before Tax to Total Assets	6.1%	2.5 - 10.4%
EBIT to Total Assets	8.2%	3.8 - 13.4%
SALES ANALYSIS		
Net Sales($000)	$7,060	$3,588 - 10,837
Percent Sales Change from Prior Year	8.3%	-1.8 - 19.0%
Sales Mix:		
Direct Sales	8.8%	3.4 - 13.3%
Warehouse Sales - Counter and Delivery	91.2%	86.7 - 96.6%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	40.5%	35.0 - 50.0%
Heating & Cooling Supplies & Equipment	23.7%	15.0 - 32.4%
Industrial P-V-F (Pipes-Valves-Fittings)	25.5%	15.0 - 37.9%
Other Industrial Supplies & Equipment	5.0%	0.0 - 9.3%
Other Products	5.3%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.9%	22.4 - 29.4%
Gross Margin on Direct Shipments	11.7%	8.5 - 15.8%
Gross Margin on Warehouse Sales	26.1%	23.3 - 29.9%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.04X	2.65 - 3.32X
Total Debt to Net Worth	73.4%	45.1 - 160.3%
Current Debt to Net Worth	58.7%	39.0 - 118.7%
Current Assets to Current Debt	2.48X	1.70 - 3.21X
Current Assets Minus Inventory/Curr Debt	1.06X	0.78 - 1.57X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	5.0 - 7.8
Average Invoice Size	$169	$115 - 212
Average Billing Line	$27.69	$19.66 - 36.97

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$189,599	$161,422 - 215,973
Gross Margin Per Employee	$46,948	$38,255 - 54,591
Average Compensation Per Employee	$23,205	$19,426 - 26,839
Average Fringe Benefits Per Employee	$4,512	$3,517 - 5,826
Compensation & Fringes Per Employee	$27,467	$22,657 - 31,744
Payroll to Net Sales	13.5%	10.6 - 15.0%
Fringe Benefits to Net Sales	2.5%	2.0 - 3.1%
Payroll & Fringes to Net Sales	14.9%	12.6 - 18.2%
Payroll to Gross Margin	51.9%	46.6 - 55.2%
Fringe Benefits to Gross Margin	10.0%	8.6 - 11.3%
Payroll & Fringes to Gross Margin	61.1%	55.7 - 65.0%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.66X	3.14 - 4.74X
% of Whse Sales from Non-Stock Items	13.6%	7.5 - 20.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.06X	2.37 - 4.01X
No. of Days Average Inventory Carried	100 Days	77 - 117 Days
Total Cost of Goods Sold to Ave Inventory	4.37X	3.33 - 5.83X
Whse Gross Margin Return on Ave Inventory	130%	106 - 192%
Turn & Earn Profitability Index	95%	82 - 138%
Percent of Firms on LIFO	37.1%	
ACCOUNTS RECEIVABLE		
Average Collection Period	54 Days	43 - 61 Days
Gross Margin Return on Receivables	176%	140 - 205%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	67.1%	58.3 - 73.0%
31-60 Days Outstanding	16.9%	13.1 - 20.9%
61-90 Days Outstanding	8.0%	5.3 - 9.6%
Over 90 Days Outstanding	8.0%	4.0 - 11.6%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,380	$587 - 1,958
31-60 Days Outstanding	$1,688	$803 - 2,386
61-90 Days Outstanding	$1,460	$786 - 2,396
Over 90 Days Outstanding	$1,444	$799 - 2,500
Total	$1,365	$797 - 2,040
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	68.8%	58.8 - 76.9%
31-60 Days Outstanding	16.0%	9.8 - 21.2%
61-90 Days Outstanding	7.6%	3.6 - 9.7%
Over 90 Days Outstanding	7.7%	2.3 - 11.5%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.1%	70.6 - 77.6%
Gross Margin	25.9%	22.4 - 29.4%
Operating Expenses:		
Selling Expenses	7.4%	5.2 - 8.6%
Delivery Expenses	1.9%	1.4 - 2.4%
Warehouse Expenses	2.9%	2.0 - 3.9%
General & Administrative Expenses	9.2%	7.1 - 11.1%
Occupancy Expenses	1.9%	1.4 - 2.7%
Other Operating Expenses	0.2%	0.0 - 0.0%
Total Operating Expenses	23.6%	20.4 - 26.7%
Net Operating Profit	2.3%	0.5 - 4.1%
Non-Operating Income	1.7%	1.3 - 2.4%
Non-Operating Expenses	1.6%	1.0 - 2.2%
Net Profit Before Tax	2.4%	0.8 - 3.4%
Net Profit After Tax	1.4%	0.6 - 2.4%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.6%	20.4 - 26.7%
Total Operating Expense to Gross Margin	91.9%	85.6 - 97.8%
Non-People Expense to Net Sales	7.9%	6.9 - 9.6%
Non-People Expense to Gross Margin	31.1%	26.8 - 35.8%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.6%	0.3 - 1.4%
Times Interest Earned	3.2X	2.0 - 9.4X
BALANCE SHEET		
Cash	4.7%	0.3 - 5.6%
Accounts & Notes Receivable, Trade(Net)	33.5%	25.2 - 40.9%
Inventory	46.8%	38.7 - 56.0%
Other Current Assets	1.8%	0.1 - 3.2%
Total Current Assets	86.8%	83.1 - 92.3%
All Other Assets	13.2%	7.7 - 16.9%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	38.6%	26.7 - 50.0%
Total Long-Term Liabilities	10.1%	1.4 - 12.5%
Total Liabilities	48.8%	31.9 - 62.1%
Total Net Worth	51.2%	37.9 - 68.1%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES UNDER $3,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	7.5%	Insufficient Data
Total Assets to Net Worth	2.1X	1.4 - 2.3X
Net Profit After Tax to Total Assets	5.5%	Insufficient Data
Net Sales to Total Assets	2.3X	1.9 - 2.5X
Net Profit After Tax to Net Sales	2.5%	Insufficient Data
Net Profit Before Tax to Net Worth	13.1%	6.8 - 31.5%
Net Profit Before Tax to Total Assets	6.2%	5.5 - 8.0%
EBIT to Total Assets	9.2%	Insufficient Data
SALES ANALYSIS		
Net Sales($000)	$1,688	$1,540 - 2,379
Percent Sales Change from Prior Year	15.2%	Insufficient Data
Sales Mix:		
Direct Sales		Insufficient Data
Warehouse Sales - Counter and Delivery		Insufficient Data
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	41.6%	30.0 - 50.0%
Heating & Cooling Supplies & Equipment	23.6%	15.0 - 40.0%
Industrial P-V-F (Pipes-Valves-Fittings)	26.2%	10.0 - 38.3%
Other Industrial Supplies & Equipment	0.0%	0.0 - 0.0%
Other Products	8.6%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	29.5%	Insufficient Data
Gross Margin on Direct Shipments		Insufficient Data
Gross Margin on Warehouse Sales		Insufficient Data
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.62X	2.09 - 2.65X
Total Debt to Net Worth	112.0%	37.3 - 130.2%
Current Debt to Net Worth	58.7%	10.6 - 116.4%
Current Assets to Current Debt	2.42X	1.92 - 9.47X
Current Assets Minus Inventory/Curr Debt	0.79X	0.62 - 4.67X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	7.0	Insufficient Data
Average Invoice Size	$102	Insufficient Data
Average Billing Line	$13.05	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES UNDER $3,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$129,610	Insufficient Data
Gross Margin Per Employee	$34,794	Insufficient Data
Average Compensation Per Employee	$18,353	Insufficient Data
Average Fringe Benefits Per Employee	$2,731	Insufficient Data
Compensation & Fringes Per Employee	$21,084	Insufficient Data
Payroll to Net Sales	14.9%	Insufficient Data
Fringe Benefits to Net Sales	2.6%	Insufficient Data
Payroll & Fringes to Net Sales	16.6%	11.4 - 20.8%
Payroll to Gross Margin	54.0%	Insufficient Data
Fringe Benefits to Gross Margin	8.9%	Insufficient Data
Payroll & Fringes to Gross Margin	60.0%	45.2 - 65.6%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory		Insufficient Data
% of Whse Sales from Non-Stock Items	11.3%	Insufficient Data
Cost of In-Stock Whse Sales/Ave Inventory		Insufficient Data
No. of Days Average Inventory Carried		Insufficient Data
Total Cost of Goods Sold to Ave Inventory	2.38X	Insufficient Data
Whse Gross Margin Return on Ave Inventory		Insufficient Data
Turn & Earn Profitability Index		Insufficient Data
Percent of Firms on LIFO	40.0%	
ACCOUNTS RECEIVABLE		
Average Collection Period	36 Days	Insufficient Data
Gross Margin Return on Receivables	285%	Insufficient Data
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	73.5%	Insufficient Data
31-60 Days Outstanding	13.9%	Insufficient Data
61-90 Days Outstanding	8.3%	Insufficient Data
Over 90 Days Outstanding	4.3%	Insufficient Data
Total	100.0%	Insufficient Data
Average Account Balance:		
Current (0-30 Days Outstanding)	$554	Insufficient Data
31-60 Days Outstanding	$461	Insufficient Data
61-90 Days Outstanding	$529	Insufficient Data
Over 90 Days Outstanding		Insufficient Data
Total	$528	Insufficient Data
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)		Insufficient Data
31-60 Days Outstanding		Insufficient Data
61-90 Days Outstanding		Insufficient Data
Over 90 Days Outstanding		Insufficient Data
Total		Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES UNDER $3,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	Insufficient Data
Cost of Goods Sold	70.5%	Insufficient Data
Gross Margin	29.5%	Insufficient Data
Operating Expenses:		
Selling Expenses	9.2%	Insufficient Data
Delivery Expenses	2.1%	Insufficient Data
Warehouse Expenses	3.3%	Insufficient Data
General & Administrative Expenses	8.2%	Insufficient Data
Occupancy Expenses	2.3%	Insufficient Data
Other Operating Expenses	0.1%	Insufficient Data
Total Operating Expenses	25.1%	Insufficient Data
Net Operating Profit	4.4%	Insufficient Data
Non-Operating Income	1.3%	Insufficient Data
Non-Operating Expenses	2.3%	Insufficient Data
Net Profit Before Tax	3.4%	Insufficient Data
Net Profit After Tax	2.5%	Insufficient Data
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	25.1%	Insufficient Data
Total Operating Expense to Gross Margin	84.7%	Insufficient Data
Non-People Expense to Net Sales	7.8%	Insufficient Data
Non-People Expense to Gross Margin	27.0%	Insufficient Data
INTEREST EXPENSE		
Interest Expense to Net Sales	1.5%	Insufficient Data
Times Interest Earned	2.6X	Insufficient Data
BALANCE SHEET		
Cash	7.6%	3.0 - 8.6%
Accounts & Notes Receivable, Trade(Net)	22.6%	14.3 - 31.2%
Inventory	57.6%	46.0 - 65.3%
Other Current Assets	1.7%	0.0 - 3.4%
Total Current Assets	89.6%	84.6 - 95.0%
All Other Assets	10.4%	5.0 - 15.4%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	33.7%	9.6 - 50.6%
Total Long-Term Liabilities	12.6%	2.9 - 25.0%
Total Liabilities	46.2%	27.2 - 56.6%
Total Net Worth	53.8%	43.4 - 72.8%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES $3,000,000 TO $7,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	6.1%	-2.2 - 10.0%
Total Assets to Net Worth	2.6X	1.5 - 3.9X
Net Profit After Tax to Total Assets	3.9%	-1.2 - 5.9%
Net Sales to Total Assets	2.7X	1.9 - 3.2X
Net Profit After Tax to Net Sales	1.0%	-0.5 - 1.9%
Net Profit Before Tax to Net Worth	8.9%	-2.4 - 16.5%
Net Profit Before Tax to Total Assets	4.7%	-1.2 - 7.7%
EBIT to Total Assets	4.7%	1.4 - 12.3%
SALES ANALYSIS		
Net Sales($000)	$4,308	$3,658 - 5,025
Percent Sales Change from Prior Year	8.2%	-1.6 - 15.1%
Sales Mix:		
Direct Sales	6.9%	3.1 - 11.8%
Warehouse Sales - Counter and Delivery	93.1%	88.2 - 96.9%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	43.2%	35.0 - 50.0%
Heating & Cooling Supplies & Equipment	25.7%	20.0 - 30.0%
Industrial P-V-F (Pipes-Valves-Fittings)	20.2%	15.0 - 25.0%
Other Industrial Supplies & Equipment	8.5%	0.0 - 15.0%
Other Products	2.4%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	28.1%	23.4 - 33.7%
Gross Margin on Direct Shipments	9.1%	Insufficient Data
Gross Margin on Warehouse Sales	24.7%	23.2 - 35.1%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.89X	2.65 - 3.48X
Total Debt to Net Worth	124.0%	46.0 - 234.6%
Current Debt to Net Worth	101.2%	42.3 - 190.1%
Current Assets to Current Debt	1.78X	1.69 - 2.97X
Current Assets Minus Inventory/Curr Debt	0.90X	0.68 - 1.32X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	7.0	6.0 - 9.5
Average Invoice Size	$165	$96 - 173
Average Billing Line	$24.12	$12.83 - 34.70

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES $3,000,000 TO $7,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$173,667	$153,918 - 215,557
Gross Margin Per Employee	$48,064	$40,416 - 52,573
Average Compensation Per Employee	$23,676	$20,675 - 25,713
Average Fringe Benefits Per Employee	$4,936	$3,454 - 6,183
Compensation & Fringes Per Employee	$28,060	$25,526 - 31,260
Payroll to Net Sales	13.6%	10.8 - 17.8%
Fringe Benefits to Net Sales	2.2%	2.1 - 3.4%
Payroll & Fringes to Net Sales	15.7%	13.2 - 19.9%
Payroll to Gross Margin	51.7%	47.4 - 53.4%
Fringe Benefits to Gross Margin	10.4%	7.7 - 11.2%
Payroll & Fringes to Gross Margin	61.1%	58.7 - 64.0%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.00X	2.50 - 5.11X
% of Whse Sales from Non-Stock Items	12.0%	8.0 - 30.0%
Cost of In-Stock Whse Sales/Ave Inventory	2.41X	1.95 - 4.24X
No. of Days Average Inventory Carried	91 Days	72 - 151 Days
Total Cost of Goods Sold to Ave Inventory	4.37X	3.33 - 6.29X
Whse Gross Margin Return on Ave Inventory	161%	116 - 209%
Turn & Earn Profitability Index	113%	80 - 141%
Percent of Firms on LIFO	9.1%	
ACCOUNTS RECEIVABLE		
Average Collection Period	61 Days	52 - 67 Days
Gross Margin Return on Receivables	163%	133 - 200%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.9%	56.0 - 78.2%
31-60 Days Outstanding	16.1%	12.5 - 19.0%
61-90 Days Outstanding	7.7%	5.1 - 9.8%
Over 90 Days Outstanding	9.4%	5.5 - 13.6%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,274	Insufficient Data
31-60 Days Outstanding	$968	Insufficient Data
61-90 Days Outstanding	$1,046	Insufficient Data
Over 90 Days Outstanding	$1,147	Insufficient Data
Total	$1,191	Insufficient Data
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	62.5%	Insufficient Data
31-60 Days Outstanding	20.1%	Insufficient Data
61-90 Days Outstanding	8.4%	Insufficient Data
Over 90 Days Outstanding	9.0%	Insufficient Data
Total	100.0%	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES $3,000,000 TO $7,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	71.9%	66.3 - 76.6%
Gross Margin	28.1%	23.4 - 33.7%
Operating Expenses:		
Selling Expenses	8.5%	5.0 - 7.9%
Delivery Expenses	1.9%	1.0 - 3.0%
Warehouse Expenses	2.7%	0.8 - 4.1%
General & Administrative Expenses	10.7%	8.1 - 14.1%
Occupancy Expenses	2.1%	1.5 - 3.1%
Other Operating Expenses	0.1%	0.0 - 0.0%
Total Operating Expenses	26.0%	23.0 - 29.9%
Net Operating Profit	2.1%	-0.1 - 4.6%
Non-Operating Income	1.6%	0.3 - 2.5%
Non-Operating Expenses	1.7%	0.9 - 2.2%
Net Profit Before Tax	2.1%	-0.6 - 3.6%
Net Profit After Tax	1.0%	-0.5 - 1.9%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	26.0%	23.0 - 29.9%
Total Operating Expense to Gross Margin	93.4%	86.3 - 100.2%
Non-People Expense to Net Sales	8.9%	7.0 - 9.8%
Non-People Expense to Gross Margin	32.8%	28.9 - 35.7%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.0%	0.6 - 1.6%
Times Interest Earned	1.7X	0.4 - 4.6X
BALANCE SHEET		
Cash	5.5%	0.1 - 12.8%
Accounts & Notes Receivable, Trade(Net)	35.4%	24.8 - 40.4%
Inventory	43.8%	35.9 - 53.7%
Other Current Assets	2.9%	0.0 - 5.7%
Total Current Assets	87.6%	80.1 - 92.4%
All Other Assets	12.4%	7.5 - 19.8%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	43.4%	29.3 - 51.5%
Total Long-Term Liabilities	14.1%	0.3 - 23.3%
Total Liabilities	57.5%	32.7 - 74.3%
Total Net Worth	42.5%	25.6 - 67.3%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES OVER $7,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	7.5%	2.5 - 13.1%
Total Assets to Net Worth	1.6X	1.5 - 2.4X
Net Profit After Tax to Total Assets	3.9%	1.7 - 5.9%
Net Sales to Total Assets	2.7X	2.4 - 2.9X
Net Profit After Tax to Net Sales	1.3%	0.6 - 2.2%
Net Profit Before Tax to Net Worth	12.0%	4.2 - 23.7%
Net Profit Before Tax to Total Assets	5.8%	2.6 - 11.6%
EBIT to Total Assets	8.1%	3.7 - 14.1%
SALES ANALYSIS		
Net Sales($000)	$10,716	$7,722 - 20,577
Percent Sales Change from Prior Year	8.2%	-2.1 - 20.5%
Sales Mix:		
Direct Sales	10.7%	5.0 - 14.6%
Warehouse Sales - Counter and Delivery	89.3%	85.4 - 95.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	38.7%	33.5 - 45.0%
Heating & Cooling Supplies & Equipment	22.7%	11.3 - 31.1%
Industrial P-V-F (Pipes-Valves-Fittings)	28.2%	15.0 - 40.0%
Other Industrial Supplies & Equipment	4.8%	0.0 - 7.4%
Other Products	5.7%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	23.6%	21.8 - 25.3%
Gross Margin on Direct Shipments	12.0%	8.0 - 15.9%
Gross Margin on Warehouse Sales	25.4%	22.7 - 28.8%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.20X	2.86 - 3.30X
Total Debt to Net Worth	64.2%	45.5 - 135.8%
Current Debt to Net Worth	57.3%	40.0 - 110.1%
Current Assets to Current Debt	2.68X	1.74 - 3.15X
Current Assets Minus Inventory/Curr Debt	1.13X	0.98 - 1.49X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.6	4.3 - 7.0
Average Invoice Size	$195	$156 - 223
Average Billing Line	$32.48	$24.90 - 39.09

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES OVER $7,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$204,082	$177,213 - 233,438
Gross Margin Per Employee	$51,920	$39,359 - 59,370
Average Compensation Per Employee	$24,786	$20,278 - 29,509
Average Fringe Benefits Per Employee	$4,809	$3,788 - 6,841
Compensation & Fringes Per Employee	$29,249	$23,378 - 34,519
Payroll to Net Sales	12.0%	10.6 - 14.4%
Fringe Benefits to Net Sales	2.4%	2.0 - 3.2%
Payroll & Fringes to Net Sales	14.0%	12.6 - 17.7%
Payroll to Gross Margin	52.0%	46.5 - 55.4%
Fringe Benefits to Gross Margin	10.3%	8.8 - 12.2%
Payroll & Fringes to Gross Margin	61.4%	55.6 - 64.7%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.66X	3.30 - 5.24X
% of Whse Sales from Non-Stock Items	13.8%	9.4 - 21.3%
Cost of In-Stock Whse Sales/Ave Inventory	3.09X	2.82 - 3.77X
No. of Days Average Inventory Carried	100 Days	70 - 111 Days
Total Cost of Goods Sold to Ave Inventory	4.52X	4.04 - 6.04X
Whse Gross Margin Return on Ave Inventory	129%	107 - 214%
Turn & Earn Profitability Index	93%	83 - 166%
Percent of Firms on LIFO	52.6%	
ACCOUNTS RECEIVABLE		
Average Collection Period	53 Days	43 - 61 Days
Gross Margin Return on Receivables	176%	133 - 190%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	65.5%	61.1 - 68.9%
31-60 Days Outstanding	18.1%	13.8 - 21.4%
61-90 Days Outstanding	8.1%	6.6 - 10.0%
Over 90 Days Outstanding	8.3%	4.3 - 11.8%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,833	$1,337 - 2,136
31-60 Days Outstanding	$2,313	$1,806 - 2,763
61-90 Days Outstanding	$1,863	$1,456 - 3,524
Over 90 Days Outstanding	$2,227	$1,283 - 3,071
Total	$1,776	$1,173 - 2,245
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	70.2%	57.8 - 82.3%
31-60 Days Outstanding	14.2%	8.2 - 19.3%
61-90 Days Outstanding	7.6%	3.5 - 9.8%
Over 90 Days Outstanding	8.0%	2.5 - 11.1%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES OVER $7,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.4%	74.7 - 78.2%
Gross Margin	23.6%	21.8 - 25.3%
Operating Expenses:		
Selling Expenses	6.2%	4.7 - 7.6%
Delivery Expenses	1.9%	1.5 - 2.4%
Warehouse Expenses	3.0%	2.4 - 3.8%
General & Administrative Expenses	8.6%	6.0 - 10.6%
Occupancy Expenses	1.7%	0.6 - 2.6%
Other Operating Expenses	0.4%	0.0 - 0.2%
Total Operating Expenses	21.8%	20.3 - 23.8%
Net Operating Profit	1.7%	0.6 - 3.4%
Non-Operating Income	2.0%	1.7 - 2.4%
Non-Operating Expenses	1.4%	0.7 - 1.9%
Net Profit Before Tax	2.3%	0.9 - 3.9%
Net Profit After Tax	1.3%	0.6 - 2.2%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	21.8%	20.3 - 23.8%
Total Operating Expense to Gross Margin	93.1%	86.3 - 97.4%
Non-People Expense to Net Sales	7.2%	6.2 - 8.7%
Non-People Expense to Gross Margin	31.0%	26.3 - 37.6%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.3%	0.1 - 0.6%
Times Interest Earned	6.0X	2.5 - 15.4X
BALANCE SHEET		
Cash	3.1%	0.3 - 4.4%
Accounts & Notes Receivable, Trade(Net)	36.2%	30.2 - 43.5%
Inventory	44.7%	38.6 - 54.7%
Other Current Assets	1.3%	0.1 - 2.1%
Total Current Assets	85.4%	82.8 - 91.0%
All Other Assets	14.6%	9.0 - 17.2%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	37.7%	26.3 - 46.1%
Total Long-Term Liabilities	7.1%	1.3 - 10.1%
Total Liabilities	44.8%	31.1 - 57.5%
Total Net Worth	55.2%	42.5 - 68.9%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	10.8%	8.3 - 15.3%
Total Assets to Net Worth	1.8X	1.5 - 2.4X
Net Profit After Tax to Total Assets	5.9%	5.0 - 7.9%
Net Sales to Total Assets	2.7X	2.3 - 3.1X
Net Profit After Tax to Net Sales	2.3%	1.8 - 3.3%
Net Profit Before Tax to Net Worth	19.4%	13.4 - 27.7%
Net Profit Before Tax to Total Assets	10.2%	7.3 - 13.7%
EBIT to Total Assets	13.4%	9.2 - 14.5%
SALES ANALYSIS		
Net Sales($000)	$7,076	$3,377 - 10,977
Percent Sales Change from Prior Year	12.9%	6.7 - 20.5%
Sales Mix:		
Direct Sales	7.1%	4.1 - 11.5%
Warehouse Sales - Counter and Delivery	92.9%	88.5 - 95.9%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	38.5%	30.0 - 50.0%
Heating & Cooling Supplies & Equipment	25.5%	20.0 - 35.4%
Industrial P-V-F (Pipes-Valves-Fittings)	27.6%	15.0 - 40.0%
Other Industrial Supplies & Equipment	4.0%	0.0 - 7.0%
Other Products	4.4%	0.0 - 5.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	27.7%	23.2 - 32.7%
Gross Margin on Direct Shipments	10.0%	7.2 - 16.3%
Gross Margin on Warehouse Sales	26.2%	23.6 - 33.3%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.01X	2.35 - 3.32X
Total Debt to Net Worth	71.3%	46.0 - 132.7%
Current Debt to Net Worth	58.0%	42.3 - 118.0%
Current Assets to Current Debt	2.67X	1.87 - 3.04X
Current Assets Minus Inventory/Curr Debt	1.11X	0.79 - 1.51X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.5	5.8 - 7.5
Average Invoice Size	$208	$165 - 235
Average Billing Line	$28.35	$22.21 - 42.13

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$196,652	$159,702 - 228,388
Gross Margin Per Employee	$51,910	$44,650 - 59,700
Average Compensation Per Employee	$23,308	$20,017 - 29,547
Average Fringe Benefits Per Employee	$4,894	$3,548 - 7,233
Compensation & Fringes Per Employee	$28,060	$23,198 - 35,405
Payroll to Net Sales	13.5%	10.6 - 16.5%
Fringe Benefits to Net Sales	2.9%	2.2 - 3.4%
Payroll & Fringes to Net Sales	15.2%	12.7 - 19.5%
Payroll to Gross Margin	49.3%	46.0 - 53.0%
Fringe Benefits to Gross Margin	10.4%	8.7 - 12.2%
Payroll & Fringes to Gross Margin	59.3%	54.6 - 62.1%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.85X	2.70 - 5.68X
% of Whse Sales from Non-Stock Items	12.0%	6.4 - 21.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.00X	2.26 - 4.59X
No. of Days Average Inventory Carried	95 Days	64 - 137 Days
Total Cost of Goods Sold to Ave Inventory	4.42X	3.45 - 6.13X
Whse Gross Margin Return on Ave Inventory	142%	110 - 241%
Turn & Earn Profitability Index	105%	83 - 160%
Percent of Firms on LIFO	44.4%	
ACCOUNTS RECEIVABLE		
Average Collection Period	54 Days	45 - 66 Days
Gross Margin Return on Receivables	177%	159 - 207%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	65.5%	57.7 - 73.0%
31-60 Days Outstanding	17.3%	13.0 - 21.2%
61-90 Days Outstanding	8.3%	5.3 - 10.4%
Over 90 Days Outstanding	8.9%	5.4 - 12.3%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,479	$587 - 2,024
31-60 Days Outstanding	$1,508	$839 - 2,577
61-90 Days Outstanding	$1,282	$786 - 2,801
Over 90 Days Outstanding	$1,444	$708 - 2,725
Total	$1,365	$797 - 2,385
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	66.2%	57.1 - 76.2%
31-60 Days Outstanding	15.6%	10.7 - 20.6%
61-90 Days Outstanding	8.3%	3.9 - 11.4%
Over 90 Days Outstanding	9.8%	4.3 - 14.5%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	72.3%	67.3 - 76.8%
Gross Margin	27.7%	23.2 - 32.7%
Operating Expenses:		
Selling Expenses	7.5%	4.3 - 8.1%
Delivery Expenses	2.1%	1.3 - 2.9%
Warehouse Expenses	3.0%	2.0 - 3.9%
General & Administrative Expenses	8.7%	5.8 - 12.4%
Occupancy Expenses	2.1%	1.5 - 2.5%
Other Operating Expenses	0.3%	0.0 - 0.2%
Total Operating Expenses	23.7%	20.3 - 27.9%
Net Operating Profit	4.0%	2.6 - 5.4%
Non-Operating Income	1.6%	0.6 - 2.4%
Non-Operating Expenses	1.4%	0.6 - 1.8%
Net Profit Before Tax	4.2%	2.5 - 5.9%
Net Profit After Tax	2.3%	1.8 - 3.3%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.7%	20.3 - 27.9%
Total Operating Expense to Gross Margin	86.0%	81.3 - 90.7%
Non-People Expense to Net Sales	7.3%	6.6 - 8.9%
Non-People Expense to Gross Margin	26.7%	24.1 - 32.4%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.5%	0.3 - 1.5%
Times Interest Earned	9.2X	3.2 - 17.7X
BALANCE SHEET		
Cash	7.0%	0.4 - 8.6%
Accounts & Notes Receivable, Trade(Net)	35.6%	25.3 - 45.8%
Inventory	45.2%	33.9 - 56.5%
Other Current Assets	1.9%	0.1 - 3.7%
Total Current Assets	89.7%	86.2 - 92.6%
All Other Assets	10.3%	7.4 - 13.8%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	40.1%	29.3 - 50.6%
Total Long-Term Liabilities	8.2%	0.3 - 9.6%
Total Liabilities	48.3%	32.7 - 58.4%
Total Net Worth	51.7%	41.6 - 67.3%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

HVAC & OTHER EMPHASIS FIRMS

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	8.7%	4.5 - 14.0%
Total Assets to Net Worth	1.9X	1.6 - 2.6X
Net Profit After Tax to Total Assets	4.2%	1.5 - 7.4%
Net Sales to Total Assets	2.6X	2.2 - 3.0X
Net Profit After Tax to Net Sales	1.6%	0.6 - 2.4%
Net Profit Before Tax to Net Worth	13.9%	6.5 - 24.4%
Net Profit Before Tax to Total Assets	5.9%	2.0 - 11.2%
EBIT to Total Assets	8.7%	5.1 - 13.0%
SALES ANALYSIS		
Net Sales($000)	$6,210	$2,971 - 13,655
Percent Sales Change from Prior Year	10.9%	-0.2 - 19.2%
Sales Mix:		
Direct Sales	7.4%	1.2 - 9.4%
Warehouse Sales - Counter and Delivery	92.6%	90.6 - 98.8%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	29.8%	20.0 - 40.0%
Heating & Cooling Supplies & Equipment	26.0%	5.0 - 42.0%
Industrial P-V-F (Pipes-Valves-Fittings)	6.4%	0.0 - 10.0%
Other Industrial Supplies & Equipment	6.7%	0.0 - 6.7%
Other Products	31.2%	2.0 - 50.7%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.5%	21.7 - 27.3%
Gross Margin on Direct Shipments	13.2%	9.1 - 18.3%
Gross Margin on Warehouse Sales	24.7%	22.1 - 27.5%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.85X	2.54 - 3.53X
Total Debt to Net Worth	92.5%	61.1 - 154.7%
Current Debt to Net Worth	63.3%	39.1 - 113.8%
Current Assets to Current Debt	2.51X	1.95 - 3.46X
Current Assets Minus Inventory/Curr Debt	0.95X	0.73 - 1.25X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	4.0 - 7.0
Average Invoice Size	$148	$101 - 225
Average Billing Line	$26.95	$19.77 - 48.79

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$177,161	$153,200 - 238,260
Gross Margin Per Employee	$43,575	$36,993 - 52,439
Average Compensation Per Employee	$21,600	$19,265 - 26,661
Average Fringe Benefits Per Employee	$3,438	$2,869 - 4,768
Compensation & Fringes Per Employee	$25,214	$21,749 - 29,477
Payroll to Net Sales	11.1%	9.9 - 14.5%
Fringe Benefits to Net Sales	1.9%	1.4 - 2.8%
Payroll & Fringes to Net Sales	12.6%	10.3 - 16.7%
Payroll to Gross Margin	48.1%	43.4 - 55.7%
Fringe Benefits to Gross Margin	8.0%	6.3 - 9.5%
Payroll & Fringes to Gross Margin	55.1%	48.5 - 62.4%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.26X	2.69 - 4.46X
% of Whse Sales from Non-Stock Items	7.0%	4.0 - 13.0%
Cost of In-Stock Whse Sales/Ave Inventory	2.95X	2.51 - 4.27X
No. of Days Average Inventory Carried	112 Days	82 - 136 Days
Total Cost of Goods Sold to Ave Inventory	3.65X	2.92 - 5.00X
Whse Gross Margin Return on Ave Inventory	113%	93 - 141%
Turn & Earn Profitability Index	86%	70 - 100%
Percent of Firms on LIFO	68.3%	
ACCOUNTS RECEIVABLE		
Average Collection Period	46 Days	39 - 53 Days
Gross Margin Return on Receivables	197%	159 - 232%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	68.1%	58.1 - 77.4%
31-60 Days Outstanding	15.0%	11.9 - 19.0%
61-90 Days Outstanding	7.2%	4.1 - 8.9%
Over 90 Days Outstanding	9.7%	4.7 - 15.5%
Total	100.0%	100.0 - 100.0%
Average Account Balances:		
Current (0-30 Days Outstanding)	$1,001	$671 - 1,846
31-60 Days Outstanding	$1,297	$571 - 2,243
61-90 Days Outstanding	$1,309	$506 - 2,595
Over 90 Days Outstanding	$1,596	$798 - 2,918
Total	$1,036	$713 - 1,843
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	69.8%	55.6 - 83.3%
31-60 Days Outstanding	14.8%	8.4 - 20.6%
61-90 Days Outstanding	7.3%	3.1 - 10.2%
Over 90 Days Outstanding	8.2%	3.4 - 10.7%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.5%	72.7 - 78.3%
Gross Margin	24.5%	21.7 - 27.3%
Operating Expenses:		
Selling Expenses	6.6%	4.6 - 7.5%
Delivery Expenses	1.6%	1.2 - 2.0%
Warehouse Expenses	2.7%	1.6 - 3.5%
General & Administrative Expenses	9.0%	6.3 - 10.6%
Occupancy Expenses	1.8%	1.0 - 2.3%
Other Operating Expenses	0.6%	0.0 - 0.3%
Total Operating Expenses	22.3%	19.0 - 24.9%
Net Operating Profit	2.2%	0.5 - 3.9%
Non-Operating Income	1.8%	1.0 - 2.4%
Non-Operating Expenses	1.7%	1.1 - 2.3%
Net Profit Before Tax	2.3%	0.8 - 4.1%
Net Profit After Tax	1.6%	0.6 - 2.4%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.3%	19.0 - 24.9%
Total Operating Expense to Gross Margin	91.7%	82.9 - 97.8%
Non-People Expense to Net Sales	7.8%	6.5 - 9.0%
Non-People Expense to Gross Margin	32.2%	27.2 - 36.8%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.9%	0.6 - 1.5%
Times Interest Earned	3.3X	1.7 - 8.2X
BALANCE SHEET		
Cash	4.1%	0.5 - 4.2%
Accounts & Notes Receivable, Trade(Net)	29.7%	24.2 - 34.6%
Inventory	51.7%	43.8 - 58.8%
Other Current Assets	1.3%	0.1 - 1.6%
Total Current Assets	86.8%	81.9 - 93.3%
All Other Assets	13.1%	6.7 - 18.1%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	35.8%	25.8 - 44.8%
Total Long-Term Liabilities	14.5%	2.1 - 22.3%
Total Liabilities	50.4%	37.9 - 60.6%
Total Net Worth	49.6%	39.4 - 62.1%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES UNDER $3,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	11.0%	5.9 - 18.1%
Total Assets to Net Worth	1.7X	1.6 - 2.6X
Net Profit After Tax to Total Assets	5.7%	3.6 - 7.5%
Net Sales to Total Assets	2.5X	1.9 - 2.7X
Net Profit After Tax to Net Sales	2.0%	1.4 - 2.8%
Net Profit Before Tax to Net Worth	14.9%	7.1 - 27.5%
Net Profit Before Tax to Total Assets	7.0%	4.1 - 10.6%
EBIT to Total Assets	7.4%	6.2 - 14.8%
SALES ANALYSIS		
Net Sales($000)	$2,336	$1,961 - 2,581
Percent Sales Change from Prior Year	11.7%	-5.0 - 22.8%
Sales Mix:		
Direct Sales	5.7%	0.0 - 6.6%
Warehouse Sales - Counter and Delivery	94.3%	93.4 - 100.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	27.6%	17.3 - 42.5%
Heating & Cooling Supplies & Equipment	24.2%	0.0 - 45.0%
Industrial P-V-F (Pipes-Valves-Fittings)	2.1%	0.0 - 5.0%
Other Industrial Supplies & Equipment	6.5%	0.0 - 5.0%
Other Products	39.7%	0.0 - 65.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.2%	23.8 - 27.9%
Gross Margin on Direct Shipments	14.3%	7.5 - 30.2%
Gross Margin on Warehouse Sales	27.1%	23.4 - 31.1%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.69X	2.25 - 3.10X
Total Debt to Net Worth	74.0%	55.8 - 155.6%
Current Debt to Net Worth	55.8%	35.4 - 91.7%
Current Assets to Current Debt	2.79X	2.31 - 4.87X
Current Assets Minus Inventory/Curr Debt	1.00X	0.75 - 1.98X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	3.0 - 7.0
Average Invoice Size	$100	$72 - 215
Average Billing Line	$22.39	$9.23 - 40.47

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES UNDER $3,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$144,166	$117,533 - 181,051
Gross Margin Per Employee	$39,401	$32,968 - 51,008
Average Compensation Per Employee	$19,797	$15,403 - 24,249
Average Fringe Benefits Per Employee	$3,252	$2,469 - 4,445
Compensation & Fringes Per Employee	$21,874	$16,965 - 26,435
Payroll to Net Sales	14.0%	10.8 - 15.4%
Fringe Benefits to Net Sales	2.1%	1.5 - 3.5%
Payroll & Fringes to Net Sales	14.1%	4.8 - 18.1%
Payroll to Gross Margin	46.7%	42.8 - 53.7%
Fringe Benefits to Gross Margin	7.1%	5.8 - 13.6%
Payroll & Fringes to Gross Margin	53.6%	22.6 - 61.3%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	2.81X	2.62 - 3.39X
% of Whse Sales from Non-Stock Items	6.2%	2.3 - 24.0%
Cost of In-Stock Whse Sales/Ave Inventory	2.53X	2.12 - 3.06X
No. of Days Average Inventory Carried	130 Days	108 - 139 Days
Total Cost of Goods Sold to Ave Inventory	2.93X	2.52 - 3.90X
Whse Gross Margin Return on Ave Inventory	108%	74 - 135%
Turn & Earn Profitability Index	78%	62 - 99%
Percent of Firms on LIFO	58.8%	
ACCOUNTS RECEIVABLE		
Average Collection Period	47 Days	40 - 69 Days
Gross Margin Return on Receivables	200%	174 - 228%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	63.7%	52.1 - 80.8%
31-60 Days Outstanding	16.3%	9.7 - 20.9%
61-90 Days Outstanding	8.2%	4.3 - 11.1%
Over 90 Days Outstanding	11.8%	6.0 - 17.8%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$754	$642 - 1,166
31-60 Days Outstanding	$767	$415 - 2,261
61-90 Days Outstanding	$542	$453 - 1,614
Over 90 Days Outstanding	$868	$576 - 1,813
Total	$825	$569 - 1,169
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	64.9%	50.1 - 79.3%
31-60 Days Outstanding	17.2%	9.6 - 23.8%
61-90 Days Outstanding	8.7%	5.6 - 13.5%
Over 90 Days Outstanding	9.1%	6.0 - 11.9%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES UNDER $3,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.8%	72.1 - 76.2%
Gross Margin	26.2%	23.8 - 27.9%
Operating Expenses:		
Selling Expenses	4.6%	2.8 - 6.3%
Delivery Expenses	1.9%	1.3 - 2.9%
Warehouse Expenses	2.3%	1.1 - 3.9%
General & Administrative Expenses	11.0%	7.9 - 11.9%
Occupancy Expenses	3.0%	1.5 - 3.0%
Other Operating Expenses	0.7%	0.0 - 0.8%
Total Operating Expenses	23.5%	20.6 - 27.4%
Net Operating Profit	2.6%	1.3 - 5.3%
Non-Operating Income	2.2%	1.4 - 2.8%
Non-Operating Expenses	2.0%	0.8 - 3.4%
Net Profit Before Tax	2.8%	1.5 - 5.9%
Net Profit After Tax	2.0%	1.4 - 2.8%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.5%	20.6 - 27.4%
Total Operating Expense to Gross Margin	89.7%	77.3 - 94.9%
Non-People Expense to Net Sales	8.5%	6.7 - 9.3%
Non-People Expense to Gross Margin	33.3%	28.1 - 37.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.8%	0.7 - 1.6%
Times Interest Earned	4.7X	1.9 - 11.6X
BALANCE SHEET		
Cash	4.9%	0.8 - 7.0%
Accounts & Notes Receivable, Trade(Net)	28.7%	19.1 - 32.6%
Inventory	54.9%	44.9 - 63.6%
Other Current Assets	0.9%	0.3 - 1.6%
Total Current Assets	89.3%	84.2 - 94.5%
All Other Assets	10.7%	5.5 - 15.8%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	29.8%	15.7 - 38.9%
Total Long-Term Liabilities	15.5%	1.3 - 32.6%
Total Liabilities	45.3%	35.2 - 58.0%
Total Net Worth	54.7%	42.0 - 64.8%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES $3,000,000 TO $8,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	11.2%	5.0 - 14.2%
Total Assets to Net Worth	1.9X	1.6 - 2.9X
Net Profit After Tax to Total Assets	4.4%	1.2 - 8.2%
Net Sales to Total Assets	2.6X	2.2 - 3.4X
Net Profit After Tax to Net Sales	1.7%	0.2 - 2.5%
Net Profit Before Tax to Net Worth	13.4%	4.6 - 25.3%
Net Profit Before Tax to Total Assets	5.5%	1.7 - 13.8%
EBIT to Total Assets	9.1%	3.9 - 15.8%
SALES ANALYSIS		
Net Sales($000)	$5,444	$4,242 - 6,901
Percent Sales Change from Prior Year	10.8%	0.2 - 18.9%
Sales Mix:		
Direct Sales	4.7%	1.0 - 8.0%
Warehouse Sales - Counter and Delivery	95.3%	92.0 - 99.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	29.1%	18.5 - 40.0%
Heating & Cooling Supplies & Equipment	24.4%	4.0 - 39.0%
Industrial P-V-F (Pipes-Valves-Fittings)	10.6%	0.0 - 17.5%
Other Industrial Supplies & Equipment	10.2%	0.0 - 18.0%
Other Products	25.7%	1.8 - 43.5%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.3%	22.0 - 28.1%
Gross Margin on Direct Shipments	12.8%	7.0 - 18.3%
Gross Margin on Warehouse Sales	25.0%	21.9 - 30.4%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.85X	2.50 - 3.85X
Total Debt to Net Worth	89.9%	61.3 - 193.7%
Current Debt to Net Worth	64.0%	35.3 - 117.6%
Current Assets to Current Debt	2.51X	1.95 - 3.62X
Current Assets Minus Inventory/Curr Debt	0.95X	0.69 - 1.49X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.6	4.8 - 7.3
Average Invoice Size	$146	$96 - 242
Average Billing Line	$24.57	$16.60 - 44.31

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES $3,000,000 TO $8,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$174,131	$152,841 - 220,087
Gross Margin Per Employee	$43,575	$36,240 - 52,426
Average Compensation Per Employee	$21,118	$19,255 - 26,667
Average Fringe Benefits Per Employee	$3,291	$2,886 - 5,490
Compensation & Fringes Per Employee	$25,418	$22,186 - 30,679
Payroll to Net Sales	11.4%	9.9 - 13.8%
Fringe Benefits to Net Sales	2.0%	1.3 - 3.1%
Payroll & Fringes to Net Sales	12.6%	10.8 - 16.7%
Payroll to Gross Margin	49.8%	44.3 - 56.1%
Fringe Benefits to Gross Margin	8.7%	6.8 - 9.4%
Payroll & Fringes to Gross Margin	58.4%	48.1 - 64.4%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.87X	3.21 - 6.12X
% of Whse Sales from Non-Stock Items	7.5%	3.5 - 15.4%
Cost of In-Stock Whse Sales/Ave Inventory	3.75X	2.99 - 5.97X
No. of Days Average Inventory Carried	94 Days	60 - 114 Days
Total Cost of Goods Sold to Ave Inventory	4.73X	3.31 - 5.50X
Whse Gross Margin Return on Ave Inventory	142%	107 - 201%
Turn & Earn Profitability Index	99%	82 - 157%
Percent of Firms on LIFO	60.9%	
ACCOUNTS RECEIVABLE		
Average Collection Period	41 Days	37 - 49 Days
Gross Margin Return on Receivables	216%	164 - 241%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	72.0%	60.3 - 80.7%
31-60 Days Outstanding	12.8%	11.6 - 16.2%
61-90 Days Outstanding	6.3%	3.1 - 8.4%
Over 90 Days Outstanding	8.9%	1.9 - 15.9%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$934	$658 - 1,788
31-60 Days Outstanding	$1,405	$559 - 1,936
61-90 Days Outstanding	$1,206	$476 - 2,657
Over 90 Days Outstanding	$1,378	$859 - 3,161
Total	$998	$709 - 1,588
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	76.5%	63.1 - 87.6%
31-60 Days Outstanding	11.8%	7.3 - 17.0%
61-90 Days Outstanding	6.2%	2.2 - 10.8%
Over 90 Days Outstanding	5.5%	1.4 - 9.0%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES $3,000,000 TO $8,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.7%	71.9 - 78.0%
Gross Margin	25.3%	22.0 - 28.1%
Operating Expenses:		
Selling Expenses	7.8%	5.2 - 9.2%
Delivery Expenses	1.6%	1.0 - 2.0%
Warehouse Expenses	3.0%	1.6 - 3.8%
General & Administrative Expenses	9.1%	6.6 - 12.0%
Occupancy Expenses	1.6%	0.2 - 2.4%
Other Operating Expenses	0.4%	0.0 - 0.4%
Total Operating Expenses	23.3%	19.4 - 26.6%
Net Operating Profit	2.0%	-0.2 - 3.8%
Non-Operating Income	1.7%	0.9 - 2.4%
Non-Operating Expenses	1.7%	1.0 - 2.6%
Net Profit Before Tax	2.1%	0.5 - 4.0%
Net Profit After Tax	1.7%	0.2 - 2.5%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.3%	19.4 - 26.6%
Total Operating Expense to Gross Margin	93.6%	84.9 - 100.8%
Non-People Expense to Net Sales	7.8%	6.6 - 9.2%
Non-People Expense to Gross Margin	31.2%	24.9 - 36.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.1%	0.5 - 1.5%
Times Interest Earned	3.4X	1.4 - 7.8X
BALANCE SHEET		
Cash	5.7%	0.5 - 4.4%
Accounts & Notes Receivable, Trade(Net)	29.5%	23.1 - 36.5%
Inventory	50.4%	42.8 - 58.1%
Other Current Assets	1.5%	0.1 - 1.8%
Total Current Assets	87.1%	81.0 - 94.1%
All Other Assets	12.9%	5.9 - 19.0%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	36.5%	26.1 - 44.7%
Total Long-Term Liabilities	14.7%	0.3 - 22.8%
Total Liabilities	51.1%	40.0 - 67.3%
Total Net Worth	48.9%	32.6 - 60.0%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES OVER $8,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	6.8%	3.2 - 9.4%
Total Assets to Net Worth	2.0X	1.7 - 2.5X
Net Profit After Tax to Total Assets	3.4%	1.5 - 5.2%
Net Sales to Total Assets	2.7X	2.2 - 2.9X
Net Profit After Tax to Net Sales	1.3%	0.6 - 2.3%
Net Profit Before Tax to Net Worth	13.9%	3.1 - 19.0%
Net Profit Before Tax to Total Assets	5.2%	1.8 - 9.4%
EBIT to Total Assets	8.9%	5.2 - 11.9%
SALES ANALYSIS		
Net Sales ($000)	$20,697	$12,707 - 34,686
Percent Sales Change from Prior Year	11.5%	4.8 - 19.7%
Sales Mix:		
Direct Sales	10.9%	6.0 - 16.1%
Warehouse Sales - Counter and Delivery	89.1%	83.9 - 94.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	32.3%	22.0 - 40.0%
Heating & Cooling Supplies & Equipment	29.2%	6.5 - 48.0%
Industrial P-V-F (Pipes-Valves-Fittings)	4.8%	0.0 - 7.5%
Other Industrial Supplies & Equipment	2.8%	0.0 - 5.0%
Other Products	30.8%	4.0 - 50.8%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	22.8%	21.1 - 25.3%
Gross Margin on Direct Shipments	14.6%	10.7 - 16.9%
Gross Margin on Warehouse Sales	23.6%	20.7 - 26.1%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.00X	2.69 - 3.47X
Total Debt to Net Worth	102.7%	70.6 - 145.9%
Current Debt to Net Worth	73.6%	42.8 - 121.0%
Current Assets to Current Debt	2.08X	1.81 - 3.02X
Current Assets Minus Inventory/Curr Debt	0.90X	0.68 - 1.12X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.0	3.6 - 6.0
Average Invoice Size	$179	$139 - 225
Average Billing Line	$36.65	$25.42 - 57.73

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES OVER $8,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$199,664	$174,301 - 258,987
Gross Margin Per Employee	$45,144	$40,396 - 53,568
Average Compensation Per Employee	$22,531	$20,079 - 26,881
Average Fringe Benefits Per Employee	$3,482	$2,843 - 4,720
Compensation & Fringes Per Employee	$26,098	$23,044 - 28,968
Payroll to Net Sales	10.8%	9.2 - 12.6%
Fringe Benefits to Net Sales	1.8%	1.4 - 2.0%
Payroll & Fringes to Net Sales	12.3%	10.3 - 15.3%
Payroll to Gross Margin	47.1%	43.3 - 54.9%
Fringe Benefits to Gross Margin	8.0%	6.3 - 8.9%
Payroll & Fringes to Gross Margin	54.6%	49.4 - 63.7%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.35X	2.76 - 4.42X
% of Whse Sales from Non-Stock Items	7.0%	4.4 - 10.0%
Cost of In-Stock Whse Sales/Ave Inventory	2.97X	2.28 - 4.48X
No. of Days Average Inventory Carried	109 Days	83 - 132 Days
Total Cost of Goods Sold to Ave Inventory	3.68X	3.17 - 4.88X
Whse Gross Margin Return on Ave Inventory	112%	89 - 121%
Turn & Earn Profitability Index	86%	68 - 96%
Percent of Firms on LIFO	82.6%	
ACCOUNTS RECEIVABLE		
Average Collection Period	47 Days	41 - 55 Days
Gross Margin Return on Receivables	179%	139 - 206%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	67.0%	60.4 - 76.3%
31-60 Days Outstanding	16.3%	14.3 - 19.5%
61-90 Days Outstanding	7.4%	4.2 - 8.8%
Over 90 Days Outstanding	9.2%	5.0 - 13.4%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,761	$1,108 - 2,225
31-60 Days Outstanding	$1,888	$1,244 - 2,664
61-90 Days Outstanding	$2,374	$1,060 - 4,006
Over 90 Days Outstanding	$2,280	$1,918 - 3,877
Total	$1,777	$1,138 - 2,304
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	66.2%	52.5 - 80.6%
31-60 Days Outstanding	16.2%	8.4 - 19.2%
61-90 Days Outstanding	7.0%	1.9 - 9.5%
Over 90 Days Outstanding	10.6%	4.0 - 18.9%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES OVER $8,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	77.2%	74.7 - 78.9%
Gross Margin	22.8%	21.1 - 25.3%
Operating Expenses:		
Selling Expenses	6.4%	4.4 - 7.0%
Delivery Expenses	1.5%	1.1 - 2.0%
Warehouse Expenses	2.7%	1.8 - 3.5%
General & Administrative Expenses	7.9%	6.0 - 9.5%
Occupancy Expenses	1.4%	1.0 - 1.9%
Other Operating Expenses	0.8%	0.0 - 0.0%
Total Operating Expenses	20.7%	17.4 - 24.2%
Net Operating Profit	2.1%	0.6 - 4.0%
Non-Operating Income	1.7%	0.9 - 2.3%
Non-Operating Expenses	1.6%	1.1 - 2.1%
Net Profit Before Tax	2.2%	0.9 - 4.4%
Net Profit After Tax	1.3%	0.6 - 2.3%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	20.7%	17.4 - 24.2%
Total Operating Expense to Gross Margin	90.8%	82.6 - 97.4%
Non-People Expense to Net Sales	7.6%	6.3 - 8.6%
Non-People Expense to Gross Margin	32.6%	27.5 - 37.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.0%	0.6 - 1.3%
Times Interest Earned	2.9X	1.8 - 8.4X
BALANCE SHEET		
Cash	2.1%	0.3 - 3.2%
Accounts & Notes Receivable, Trade(Net)	30.7%	25.7 - 36.1%
Inventory	50.8%	43.6 - 56.9%
Other Current Assets	1.2%	0.0 - 1.6%
Total Current Assets	84.9%	79.2 - 93.1%
All Other Assets	15.1%	6.9 - 20.8%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	39.5%	26.7 - 49.4%
Total Long-Term Liabilities	13.7%	2.6 - 20.9%
Total Liabilities	53.2%	41.3 - 59.3%
Total Net Worth	46.8%	40.7 - 58.7%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	12.2%	8.7 - 17.6%
Total Assets to Net Worth	1.9X	1.6 - 2.3X
Net Profit After Tax to Total Assets	7.4%	4.7 - 8.6%
Net Sales to Total Assets	2.7X	2.2 - 3.3X
Net Profit After Tax to Net Sales	2.4%	1.9 - 3.4%
Net Profit Before Tax to Net Worth	22.7%	16.6 - 31.3%
Net Profit Before Tax to Total Assets	11.2%	8.5 - 16.1%
EBIT to Total Assets	13.5%	10.4 - 17.6%
SALES ANALYSIS		
Net Sales($000)	$5,439	$2,524 - 12,166
Percent Sales Change from Prior Year	16.0%	10.6 - 25.1%
Sales Mix:		
Direct Sales	8.2%	0.6 - 11.3%
Warehouse Sales - Counter and Delivery	91.8%	88.7 - 99.4%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	30.6%	21.1 - 40.0%
Heating & Cooling Supplies & Equipment	30.2%	6.0 - 50.0%
Industrial P-V-F (Pipes-Valves-Fittings)	5.6%	0.0 - 5.0%
Other Industrial Supplies & Equipment	3.8%	0.0 - 4.0%
Other Products	29.7%	0.5 - 52.5%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.4%	21.9 - 27.6%
Gross Margin on Direct Shipments	12.5%	8.5 - 15.9%
Gross Margin on Warehouse Sales	25.3%	22.2 - 30.2%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.89X	2.65 - 3.55X
Total Debt to Net Worth	85.7%	55.6 - 125.1%
Current Debt tc Net Worth	61.1%	39.7 - 106.0%
Current Assets to Current Debt	2.50X	1.96 - 3.31X
Current Assets Minus Inventory/Curr Debt	0.98X	0.83 - 1.30X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.5	3.7 - 8.0
Average Invoice Size	$171	$126 - 277
Average Billing Line	$30.90	$21.62 - 53.64

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$207,689	$161,331 - 261,869
Gross Margin Per Employee	$46,911	$39,224 - 67,170
Average Compensation Per Employee	$23,046	$19,311 - 31,097
Average Fringe Benefits Per Employee	$3,589	$2,927 - 4,939
Compensation & Fringes Per Employee	$26,295	$21,749 - 34,858
Payroll to Net Sales	10.9%	9.9 - 12.3%
Fringe Benefits to Net Sales	1.8%	1.4 - 2.5%
Payroll & Fringes to Net Sales	12.2%	10.4 - 14.8%
Payroll to Gross Margin	45.8%	42.1 - 49.2%
Fringe Benefits to Gross Margin	7.7%	6.2 - 9.0%
Payroll & Fringes to Gross Margin	51.0%	45.9 - 58.0%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.61X	2.83 - 5.02X
% of Whse Sales from Non-Stock Items	5.0%	2.0 - 9.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.43X	2.73 - 4.77X
No. of Days Average Inventory Carried	101 Days	73 - 129 Days
Total Cost of Goods Sold to Ave Inventory	4.38X	3.15 - 5.44X
Whse Gross Margin Return on Ave Inventory	127%	101 - 147%
Turn & Earn Profitability Index	96%	81 - 111%
Percent of Firms on LIFO	62.1%	
ACCOUNTS RECEIVABLE		
Average Collection Period	47 Days	39 - 50 Days
Gross Margin Return on Receivables	197%	174 - 239%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.7%	56.2 - 76.7%
31-60 Days Outstanding	16.5%	14.1 - 19.5%
61-90 Days Outstanding	7.4%	3.8 - 9.1%
Over 90 Days Outstanding	9.4%	3.0 - 15.1%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,433	$726 - 2,221
31-60 Days Outstanding	$2,243	$881 - 2,414
61-90 Days Outstanding	$1,689	$697 - 3,217
Over 90 Days Outstanding	$1,957	$884 - 3,260
Total	$1,447	$905 - 2,337
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	73.7%	52.1 - 87.6%
31-60 Days Outstanding	13.2%	7.3 - 21.2%
61-90 Days Outstanding	6.1%	1.7 - 8.9%
Over 90 Days Outstanding	7.0%	1.2 - 10.5%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.6%	72.4 - 78.1%
Gross Margin	25.4%	21.9 - 27.6%
Operating Expenses:		
Selling Expenses	5.4%	3.9 - 6.0%
Delivery Expenses	1.5%	1.1 - 2.1%
Warehouse Expenses	2.8%	1.3 - 3.6%
General & Administrative Expenses	8.6%	6.2 - 9.7%
Occupancy Expenses	1.8%	1.1 - 2.4%
Other Operating Expenses	0.8%	0.0 - 0.3%
Total Operating Expenses	21.1%	17.7 - 23.0%
Net Operating Profit	4.3%	3.1 - 5.3%
Non-Operating Income	2.1%	1.0 - 2.7%
Non-Operating Expenses	1.5%	1.1 - 2.2%
Net Profit Before Tax	4.8%	3.4 - 6.3%
Net Profit After Tax	2.4%	1.9 - 3.4%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	21.1%	17.7 - 23.0%
Total Operating Expense to Gross Margin	82.8%	78.1 - 87.0%
Non-People Expense to Net Sales	6.6%	5.9 - 7.7%
Non-People Expense to Gross Margin	26.7%	22.7 - 29.2%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.9%	0.5 - 1.2%
Times Interest Earned	6.6X	4.6 - 11.6X
BALANCE SHEET		
Cash	5.7%	0.6 - 5.9%
Accounts & Notes Receivable, Trade(Net)	31.0%	24.8 - 37.1%
Inventory	47.9%	40.8 - 57.1%
Other Current Assets	1.2%	0.1 - 1.9%
Total Current Assets	85.9%	80.2 - 94.4%
All Other Assets	14.1%	5.6 - 19.8%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	34.2%	26.4 - 44.9%
Total Long-Term Liabilities	11.3%	1.2 - 20.7%
Total Liabilities	45.5%	37.4 - 54.5%
Total Net Worth	54.5%	45.5 - 62.6%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

ALL REPORTING FIRMS

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

ALL FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	8.1%	3.3 - 13.9%
Total Assets to Net Worth	1.9X	1.5 - 3.2X
Net Profit After Tax to Total Assets	4.0%	1.5 - 6.7%
Net Sales to Total Assets	2.6X	2.2 - 3.0X
Net Profit After Tax to Net Sales	1.5%	0.6 - 2.5%
Net Profit Before Tax to Net Worth	11.8%	4.5 - 22.4%
Net Profit Before Tax to Total Assets	5.9%	2.1 - 9.8%
EBIT to Total Assets	8.1%	4.5 - 11.4%
SALES ANALYSIS		
Net Sales($000)	$6,069	$3,188 - 12,625
Percent Sales Change from Prior Year	8.2%	-1.9 - 16.6%
Sales Mix:		
Direct Sales	10.0%	2.8 - 13.8%
Warehouse Sales - Counter and Delivery	90.0%	86.2 - 97.2%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	53.8%	32.3 - 79.9%
Heating & Cooling Supplies & Equipment	14.5%	0.0 - 25.0%
Industrial P-V-F (Pipes-Valves-Fittings)	18.9%	0.0 - 20.8%
Other Industrial Supplies & Equipment	3.1%	0.0 - 2.4%
Other Products	9.8%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.9%	21.6 - 27.3%
Gross Margin on Direct Shipments	11.6%	8.3 - 15.8%
Gross Margin on Warehouse Sales	25.1%	22.3 - 28.3%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.95X	2.57 - 3.45X
Total Debt to Net Worth	90.8%	48.6 - 200.4%
Current Debt to Net Worth	63.8%	37.2 - 139.8%
Current Assets to Current Debt	2.51X	1.71 - 3.51X
Current Assets Minus Inventory/Curr Debt	1.04X	0.71 - 1.61X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.4	4.4 - 7.0
Average Invoice Size	$182	$126 - 247
Average Billing Line	$31.28	$20.24 - 46.80

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

ALL FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$193,225	$160,975 - 234,375
Gross Margin Per Employee	$46,409	$39,443 - 55,107
Average Compensation Per Employee	$23,049	$20,091 - 26,901
Average Fringe Benefits Per Employee	$4,052	$3,023 - 5,272
Compensation & Fringes Per Employee	$26,641	$22,892 - 31,417
Payroll to Net Sales	11.8%	10.4 - 14.0%
Fringe Benefits to Net Sales	2.1%	1.6 - 2.8%
Payroll & Fringes to Net Sales	13.3%	10.8 - 16.5%
Payroll to Gross Margin	49.8%	45.1 - 54.2%
Fringe Benefits to Gross Margin	8.6%	7.0 - 11.0%
Payroll & Fringes to Gross Margin	56.9%	49.4 - 62.9%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.63X	2.85 - 4.57X
% of Whse Sales from Non-Stock Items	10.0%	5.0 - 18.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.10X	2.50 - 4.11X
No. of Days Average Inventory Carried	100 Days	80 - 128 Days
Total Cost of Goods Sold to Ave Inventory	4.15X	3.22 - 5.31X
Whse Gross Margin Return on Ave Inventory	122%	103 - 152%
Turn & Earn Profitability Index	92%	77 - 112%
Percent of Firms on LIFO	54.8%	
ACCOUNTS RECEIVABLE		
Average Collection Period	47 Days	41 - 56 Days
Gross Margin Return on Receivables	182%	150 - 218%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.6%	57.3 - 76.5%
31-60 Days Outstanding	16.8%	12.8 - 20.4%
61-90 Days Outstanding	7.3%	4.0 - 9.5%
Over 90 Days Outstanding	9.4%	3.4 - 14.2%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,247	$720 - 2,144
31-60 Days Outstanding	$1,463	$713 - 2,253
61-90 Days Outstanding	$1,171	$489 - 2,207
Over 90 Days Outstanding	$1,371	$689 - 2,592
Total	$1,298	$834 - 2,046
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	68.3%	57.0 - 80.7%
31-60 Days Outstanding	16.8%	9.8 - 22.2%
61-90 Days Outstanding	7.4%	3.8 - 10.1%
Over 90 Days Outstanding	7.5%	3.3 - 10.1%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

ALL FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.1%	72.7 - 78.4%
Gross Margin	24.9%	21.6 - 27.3%
Operating Expenses:		
Selling Expenses	6.6%	4.6 - 7.6%
Delivery Expenses	1.9%	1.2 - 2.4%
Warehouse Expenses	2.9%	1.8 - 3.7%
General & Administrative Expenses	9.1%	6.5 - 10.6%
Occupancy Expenses	2.0%	1.1 - 2.8%
Other Operating Expenses	0.4%	0.0 - 0.2%
Total Operating Expenses	22.9%	19.3 - 25.4%
Net Operating Profit	2.0%	0.6 - 3.6%
Non-Operating Income	1.7%	0.9 - 2.4%
Non-Operating Expenses	1.8%	0.9 - 2.5%
Net Profit Before Tax	1.9%	0.8 - 3.5%
Net Profit After Tax	1.5%	0.6 - 2.5%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.9%	19.3 - 25.4%
Total Operating Expense to Gross Margin	92.8%	85.5 - 97.4%
Non-People Expense to Net Sales	8.2%	6.5 - 9.5%
Non-People Expense to Gross Margin	32.8%	27.7 - 37.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.8%	0.4 - 1.5%
Times Interest Earned	3.1X	1.7 - 7.8X
BALANCE SHEET		
Cash	5.3%	0.7 - 6.2%
Accounts & Notes Receivable, Trade(Net)	31.0%	24.2 - 37.4%
Inventory	48.5%	41.0 - 57.2%
Other Current Assets	1.7%	0.2 - 2.2%
Total Current Assets	86.4%	81.7 - 93.2%
All Other Assets	13.6%	6.8 - 18.3%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	37.9%	23.9 - 50.1%
Total Long-Term Liabilities	12.1%	1.2 - 19.0%
Total Liabilities	50.1%	32.9 - 67.7%
Total Net Worth	49.8%	32.3 - 67.1%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

ALL FIRMS BY GEOGRAPHIC REGION

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PHWNE REGION

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	10.8%	6.9 - 23.8%
Total Assets to Net Worth	1.9X	1.4 - 2.7X
Net Profit After Tax to Total Assets	6.9%	4.4 - 10.6%
Net Sales to Total Assets	2.6X	2.1 - 2.9X
Net Profit After Tax to Net Sales	2.8%	1.5 - 3.6%
Net Profit Before Tax to Net Worth	19.4%	12.7 - 33.0%
Net Profit Before Tax to Total Assets	12.2%	7.5 - 15.9%
EBIT to Total Assets	15.3%	8.5 - 21.0%
SALES ANALYSIS		
Net Sales($000)	$6,591	$4,158 - 12,589
Percent Sales Change from Prior Year	15.1%	5.4 - 22.4%
Sales Mix:		
Direct Sales	5.6%	1.4 - 10.1%
Warehouse Sales - Counter and Delivery	94.4%	89.9 - 98.6%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	46.3%	35.4 - 57.0%
Heating & Cooling Supplies & Equipment	31.8%	23.8 - 40.0%
Industrial P-V-F (Pipes-Valves-Fittings)	15.6%	0.4 - 20.0%
Other Industrial Supplies & Equipment	1.7%	0.0 - 2.3%
Other Products	4.5%	0.0 - 2.8%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.7%	23.5 - 29.8%
Gross Margin on Direct Shipments	11.2%	8.9 - 18.4%
Gross Margin on Warehouse Sales	26.0%	23.8 - 32.7%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.96X	2.46 - 3.35X
Total Debt to Net Worth	85.6%	37.9 - 165.3%
Current Debt to Net Worth	66.1%	37.6 - 114.3%
Current Assets to Current Debt	2.45X	1.80 - 3.32X
Current Assets Minus Inventory/Curr Debt	0.96X	0.80 - 2.09X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	4.0 - 7.0
Average Invoice Size	$167	$95 - 258
Average Billing Line	$26.47	$19.34 - 46.49

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PHWNE REGION

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$215,418	$178,580 - 273,055
Gross Margin Per Employee	$55,925	$46,099 - 82,330
Average Compensation Per Employee	$23,187	$20,845 - 37,026
Average Fringe Benefits Per Employee	$4,503	$3,599 - 8,703
Compensation & Fringes Per Employee	$31,002	$24,387 - 48,462
Payroll to Net Sales	11.2%	10.2 - 14.4%
Fringe Benefits to Net Sales	2.4%	1.5 - 3.3%
Payroll & Fringes to Net Sales	13.6%	12.0 - 17.4%
Payroll to Gross Margin	47.0%	40.0 - 51.7%
Fringe Benefits to Gross Margin	9.9%	6.0 - 11.8%
Payroll & Fringes to Gross Margin	55.0%	46.3 - 61.9%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.62X	2.82 - 5.11X
% of Whse Sales from Non-Stock Items	7.5%	3.0 - 12.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.50X	2.36 - 4.59X
No. of Days Average Inventory Carried	101 Days	72 - 129 Days
Total Cost of Goods Sold to Ave Inventory	4.49X	3.80 - 5.34X
Whse Gross Margin Return on Ave Inventory	143%	113 - 181%
Turn & Earn Profitability Index	104%	77 - 141%
Percent of Firms on LIFO	42.1%	
ACCOUNTS RECEIVABLE		
Average Collection Period	51 Days	45 - 66 Days
Gross Margin Return on Receivables	181%	169 - 209%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	67.5%	56.1 - 79.6%
31-60 Days Outstanding	17.0%	13.3 - 22.3%
61-90 Days Outstanding	7.7%	3.8 - 10.6%
Over 90 Days Outstanding	7.9%	2.7 - 12.2%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,747	$1,248 - 3,478
31-60 Days Outstanding	$1,677	$1,389 - 2,559
61-90 Days Outstanding	$1,414	$947 - 2,660
Over 90 Days Outstanding	$2,085	$1,537 - 3,029
Total	$1,810	$1,221 - 3,228
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	62.7%	49.8 - 74.1%
31-60 Days Outstanding	18.7%	9.8 - 22.2%
61-90 Days Outstanding	9.5%	4.8 - 12.9%
Over 90 Days Outstanding	9.0%	2.3 - 14.3%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PHWNE REGION

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.3%	70.2 - 76.5%
Gross Margin	26.7%	23.5 - 29.8%
Operating Expenses:		
Selling Expenses	6.5%	4.2 - 6.6%
Delivery Expenses	2.2%	1.7 - 3.0%
Warehouse Expenses	2.8%	1.4 - 4.3%
General & Administrative Expenses	9.1%	7.3 - 11.2%
Occupancy Expenses	1.9%	1.1 - 2.6%
Other Operating Expenses	0.1%	0.0 - 0.0%
Total Operating Expenses	22.6%	19.0 - 25.1%
Net Operating Profit	4.1%	2.2 - 6.1%
Non-Operating Income	1.6%	0.8 - 2.2%
Non-Operating Expenses	1.3%	0.6 - 1.8%
Net Profit Before Tax	4.5%	2.3 - 6.6%
Net Profit After Tax	2.8%	1.5 - 3.6%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.6%	19.0 - 25.1%
Total Operating Expense to Gross Margin	84.8%	79.4 - 91.1%
Non-People Expense to Net Sales	7.2%	5.4 - 9.5%
Non-People Expense to Gross Margin	27.2%	22.1 - 33.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.5 - 1.5%
Times Interest Earned	6.3X	3.4 - 16.1X
BALANCE SHEET		
Cash	8.3%	0.6 - 13.4%
Accounts & Notes Receivable, Trade(Net)	32.9%	24.4 - 39.2%
Inventory	45.1%	38.3 - 52.9%
Other Current Assets	1.6%	0.1 - 2.8%
Total Current Assets	88.0%	82.7 - 94.6%
All Other Assets	12.0%	5.4 - 17.3%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	38.6%	25.4 - 49.7%
Total Long-Term Liabilities	8.0%	0.0 - 12.0%
Total Liabilities	46.6%	27.5 - 62.3%
Total Net Worth	53.4%	37.7 - 72.5%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

NYSPHW REGION

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	9.6%	4.3 - 15.2%
Total Assets to Net Worth	1.7X	1.4 - 2.8X
Net Profit After Tax to Total Assets	4.9%	2.6 - 6.9%
Net Sales to Total Assets	2.3X	1.5 - 2.8X
Net Profit After Tax to Net Sales	2.0%	1.3 - 3.7%
Net Profit Before Tax to Net Worth	15.7%	5.6 - 29.6%
Net Profit Before Tax to Total Assets	8.5%	3.7 - 10.2%
EBIT to Total Assets	8.6%	4.6 - 12.7%
SALES ANALYSIS		
Net Sales($000)	$6,227	$2,419 - 10,693
Percent Sales Change from Prior Year	7.6%	3.8 - 18.4%
Sales Mix:		
Direct Sales	12.4%	4.3 - 17.3%
Warehouse Sales - Counter and Delivery	87.6%	82.7 - 95.8%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	54.1%	35.0 - 75.0%
Heating & Cooling Supplies & Equipment	14.1%	1.0 - 25.0%
Industrial P-V-F (Pipes-Valves-Fittings)	22.5%	1.0 - 34.0%
Other Industrial Supplies & Equipment	2.5%	0.0 - 1.5%
Other Products	6.8%	0.0 - 8.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.4%	23.4 - 28.7%
Gross Margin on Direct Shipments	10.0%	7.8 - 18.1%
Gross Margin on Warehouse Sales	28.1%	25.2 - 30.5%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.65X	2.15 - 3.15X
Total Debt to Net Worth	68.6%	38.8 - 165.5%
Current Debt to Net Worth	57.5%	32.4 - 131.4%
Current Assets to Current Debt	2.46X	2.03 - 3.78X
Current Assets Minus Inventory/Curr Debt	1.11X	0.65 - 2.25X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.5	4.8 - 10.5
Average Invoice Size	$166	$130 - 209
Average Billing Line	$21.20	$15.05 - 28.06

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

NYSPHW REGION

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$174,534	$134,923 - 230,546
Gross Margin Per Employee	$44,470	$35,187 - 52,000
Average Compensation Per Employee	$22,339	$15,762 - 24,939
Average Fringe Benefits Per Employee	$3,710	$2,587 - 4,901
Compensation & Fringes Per Employee	$25,161	$16,974 - 28,176
Payroll to Net Sales	10.7%	10.0 - 14.8%
Fringe Benefits to Net Sales	2.3%	1.8 - 2.5%
Payroll & Fringes to Net Sales	12.5%	4.8 - 16.1%
Payroll to Gross Margin	48.5%	44.3 - 53.0%
Fringe Benefits to Gross Margin	8.3%	7.3 - 10.4%
Payroll & Fringes to Gross Margin	53.3%	18.0 - 60.2%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.22X	2.56 - 5.73X
% of Whse Sales from Non-Stock Items	11.0%	5.0 - 20.0%
Cost of In-Stock Whse Sales/Ave Inventory	2.72X	2.25 - 6.19X
No. of Days Average Inventory Carried	113 Days	66 - 142 Days
Total Cost of Goods Sold to Ave Inventory	3.27X	2.60 - 5.59X
Whse Gross Margin Return on Ave Inventory	133%	100 - 200%
Turn & Earn Profitability Index	95%	72 - 143%
Percent of Firms on LIFO	42.9%	
ACCOUNTS RECEIVABLE		
Average Collection Period	53 Days	43 - 73 Days
Gross Margin Return on Receivables	189%	114 - 204%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	62.0%	53.6 - 67.2%
31-60 Days Outstanding	20.1%	13.1 - 25.4%
61-90 Days Outstanding	7.8%	2.8 - 10.9%
Over 90 Days Outstanding	10.0%	4.2 - 14.8%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$854	$491 - 1,842
31-60 Days Outstanding	$1,987	$1,000 - 2,316
61-90 Days Outstanding	$1,029	$546 - 2,850
Over 90 Days Outstanding	$868	$589 - 2,030
Total	$984	$586 - 1,902
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	68.8%	60.5 - 80.4%
31-60 Days Outstanding	15.4%	10.4 - 19.2%
61-90 Days Outstanding	6.4%	3.2 - 9.4%
Over 90 Days Outstanding	9.4%	4.1 - 14.5%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

NYSPHW REGION

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.6%	71.3 - 76.6%
Gross Margin	26.4%	23.4 - 28.7%
Operating Expenses:		
Selling Expenses	6.2%	4.0 - 6.5%
Delivery Expenses	1.7%	0.3 - 2.6%
Warehouse Expenses	2.2%	1.1 - 3.0%
General & Administrative Expenses	9.6%	7.0 - 10.7%
Occupancy Expenses	1.9%	0.5 - 3.6%
Other Operating Expenses	1.1%	0.0 - 0.3%
Total Operating Expenses	22.8%	19.5 - 25.7%
Net Operating Profit	3.6%	2.3 - 4.5%
Non-Operating Income	1.6%	0.5 - 2.6%
Non-Operating Expenses	1.3%	0.7 - 1.8%
Net Profit Before Tax	3.9%	2.1 - 5.9%
Net Profit After Tax	2.0%	1.3 - 3.7%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.8%	19.5 - 25.7%
Total Operating Expense to Gross Margin	86.3%	81.9 - 91.7%
Non-People Expense to Net Sales	8.4%	6.1 - 9.9%
Non-People Expense to Gross Margin	32.6%	25.9 - 40.0%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.5%	0.1 - 1.1%
Times Interest Earned	5.1X	4.7 - 39.6X
BALANCE SHEET		
Cash	8.8%	1.5 - 16.0%
Accounts & Notes Receivable, Trade(Net)	29.9%	17.7 - 36.9%
Inventory	45.7%	31.7 - 57.1%
Other Current Assets	1.6%	0.1 - 1.2%
Total Current Assets	85.9%	83.2 - 94.1%
All Other Assets	14.1%	5.9 - 16.8%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	32.7%	16.6 - 39.9%
Total Long-Term Liabilities	7.8%	0.0 - 7.4%
Total Liabilities	40.5%	27.2 - 58.4%
Total Net Worth	59.5%	41.6 - 72.8%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

MAWA REGION

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	10.2%	5.4 - 17.0%
Total Assets to Net Worth	2.2X	1.6 - 3.1X
Net Profit After Tax to Total Assets	3.8%	1.6 - 7.2%
Net Sales to Total Assets	2.7X	2.4 - 3.3X
Net Profit After Tax to Net Sales	1.2%	0.6 - 2.3%
Net Profit Before Tax to Net Worth	14.9%	7.2 - 26.0%
Net Profit Before Tax to Total Assets	4.9%	2.5 - 12.9%
EBIT to Total Assets	9.2%	4.6 - 12.2%
SALES ANALYSIS		
Net Sales($000)	$5,757	$3,479 - 10,271
Percent Sales Change from Prior Year	8.4%	0.8 - 17.9%
Sales Mix:		
Direct Sales	8.7%	0.6 - 13.2%
Warehouse Sales - Counter and Delivery	91.3%	86.8 - 99.4%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	53.1%	32.5 - 78.8%
Heating & Cooling Supplies & Equipment	21.7%	7.0 - 32.5%
Industrial P-V-F (Pipes-Valves-Fittings)	11.8%	0.0 - 12.0%
Other Industrial Supplies & Equipment	3.6%	0.0 - 5.0%
Other Products	9.8%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.8%	21.4 - 27.8%
Gross Margin on Direct Shipments	11.3%	7.4 - 14.1%
Gross Margin on Warehouse Sales	26.5%	22.9 - 29.5%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.18X	2.79 - 3.87X
Total Debt to Net Worth	116.8%	63.9 - 209.2%
Current Debt to Net Worth	100.3%	52.2 - 163.7%
Current Assets to Current Debt	2.29X	1.67 - 2.84X
Current Assets Minus Inventory/Curr Debt	1.04X	0.76 - 1.33X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	4.6 - 9.0
Average Invoice Size	$148	$103 - 219
Average Billing Line	$24.63	$16.56 - 34.49

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

MAWA REGION

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$201,426	$157,843 - 228,822
Gross Margin Per Employee	$45,788	$39,874 - 53,307
Average Compensation Per Employee	$22,668	$19,160 - 26,166
Average Fringe Benefits Per Employee	$4,763	$3,313 - 6,116
Compensation & Fringes Per Employee	$27,377	$22,024 - 31,715
Payroll to Net Sales	11.3%	10.3 - 13.6%
Fringe Benefits to Net Sales	2.5%	1.9 - 3.2%
Payroll & Fringes to Net Sales	13.3%	12.2 - 16.7%
Payroll to Gross Margin	49.2%	42.5 - 52.0%
Fringe Benefits to Gross Margin	9.9%	8.0 - 12.4%
Payroll & Fringes to Gross Margin	59.0%	49.6 - 64.0%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.53X	3.65 - 5.87X
% of Whse Sales from Non-Stock Items	12.0%	5.0 - 20.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.98X	3.09 - 5.20X
No. of Days Average Inventory Carried	81 Days	62 - 100 Days
Total Cost of Goods Sold to Ave Inventory	5.07X	3.72 - 6.94X
Whse Gross Margin Return on Ave Inventory	144%	112 - 219%
Turn & Earn Profitability Index	119%	89 - 166%
Percent of Firms on LIFO	38.7%	
ACCOUNTS RECEIVABLE		
Average Collection Period	50 Days	43 - 60 Days
Gross Margin Return on Receivables	171%	144 - 219%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.4%	58.4 - 74.8%
31-60 Days Outstanding	16.7%	13.6 - 19.3%
61-90 Days Outstanding	7.7%	4.3 - 9.1%
Over 90 Days Outstanding	9.2%	3.4 - 15.0%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,376	$929 - 2,142
31-60 Days Outstanding	$2,084	$901 - 3,458
61-90 Days Outstanding	$1,612	$709 - 3,162
Over 90 Days Outstanding	$1,491	$738 - 3,893
Total	$1,447	$1,092 - 2,493
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	69.3%	62.2 - 83.0%
31-60 Days Outstanding	14.6%	7.8 - 19.9%
61-90 Days Outstanding	8.8%	3.8 - 10.1%
Over 90 Days Outstanding	7.4%	2.8 - 10.3%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

MAWA REGION

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.2%	72.2 - 78.6%
Gross Margin	24.8%	21.4 - 27.8%
Operating Expenses:		
Selling Expenses	5.7%	3.5 - 7.5%
Delivery Expenses	2.3%	1.5 - 2.8%
Warehouse Expenses	2.9%	1.7 - 3.7%
General & Administrative Expenses	8.7%	6.1 - 11.7%
Occupancy Expenses	2.0%	1.0 - 3.2%
Other Operating Expenses	0.4%	0.0 - 0.2%
Total Operating Expenses	22.0%	18.5 - 24.8%
Net Operating Profit	2.8%	1.3 - 4.1%
Non-Operating Income	1.8%	1.1 - 2.5%
Non-Operating Expenses	1.7%	0.7 - 2.7%
Net Profit Before Tax	2.8%	0.9 - 4.5%
Net Profit After Tax	1.2%	0.6 - 2.3%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.0%	18.5 - 24.8%
Total Operating Expense to Gross Margin	89.1%	85.5 - 94.7%
Non-People Expense to Net Sales	7.6%	6.2 - 9.5%
Non-People Expense to Gross Margin	31.2%	25.3 - 36.5%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.8%	0.3 - 1.4%
Times Interest Earned	3.3X	1.4 - 9.1X
BALANCE SHEET		
Cash	5.2%	0.3 - 6.1%
Accounts & Notes Receivable, Trade(Net)	33.8%	27.0 - 40.4%
Inventory	44.0%	36.0 - 55.2%
Other Current Assets	2.6%	0.6 - 3.4%
Total Current Assets	85.6%	83.0 - 90.9%
All Other Assets	14.4%	9.1 - 17.0%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	40.3%	28.2 - 51.9%
Total Long-Term Liabilities	14.1%	2.4 - 22.5%
Total Liabilities	54.4%	39.0 - 67.6%
Total Net Worth	45.5%	32.4 - 61.0%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

CWA REGION

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	8.0%	1.8 - 12.1%
Total Assets to Net Worth	1.8X	1.5 - 2.9X
Net Profit After Tax to Total Assets	3.9%	1.0 - 5.8%
Net Sales to Total Assets	2.6X	2.1 - 3.0X
Net Profit After Tax to Net Sales	1.5%	0.4 - 2.2%
Net Profit Before Tax to Net Worth	10.5%	4.2 - 17.0%
Net Profit Before Tax to Total Assets	5.5%	1.6 - 7.9%
EBIT to Total Assets	7.0%	3.6 - 11.0%
SALES ANALYSIS		
Net Sales ($000)	$5,276	$2,972 - 12,729
Percent Sales Change from Prior Year	11.0%	0.9 - 19.8%
Sales Mix:		
Direct Sales	8.3%	2.6 - 13.0%
Warehouse Sales - Counter and Delivery	91.6%	87.0 - 97.4%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	41.6%	20.0 - 67.0%
Heating & Cooling Supplies & Equipment	13.2%	0.0 - 25.0%
Industrial P-V-F (Pipes-Valves-Fittings)	23.5%	0.0 - 37.5%
Other Industrial Supplies & Equipment	4.8%	0.0 - 5.0%
Other Products	16.9%	0.0 - 30.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.5%	21.9 - 29.2%
Gross Margin on Direct Shipments	14.7%	9.1 - 19.2%
Gross Margin on Warehouse Sales	25.3%	22.7 - 30.1%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.94X	2.62 - 3.51X
Total Debt to Net Worth	72.8%	43.0 - 167.5%
Current Debt to Net Worth	59.3%	30.4 - 102.1%
Current Assets to Current Debt	2.73X	1.87 - 3.72X
Current Assets Minus Inventory/Curr Debt	1.04X	0.75 - 1.52X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	4.1 - 6.0
Average Invoice Size	$171	$97 - 229
Average Billing Line	$33.54	$16.68 - 55.70

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

CWA REGION

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$179,642	$160,342 - 210,666
Gross Margin Per Employee	$46,248	$38,908 - 51,779
Average Compensation Per Employee	$22,789	$20,115 - 26,509
Average Fringe Benefits Per Employee	$3,865	$3,275 - 5,028
Compensation & Fringes Per Employee	$26,733	$23,942 - 30,578
Payroll to Net Sales	12.5%	11.1 - 14.6%
Fringe Benefits to Net Sales	2.2%	1.7 - 2.9%
Payroll & Fringes to Net Sales	14.7%	12.4 - 17.4%
Payroll to Gross Margin	50.6%	46.2 - 56.1%
Fringe Benefits to Gross Margin	8.8%	7.1 - 10.9%
Payroll & Fringes to Gross Margin	57.6%	52.8 - 64.8%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.36X	2.71 - 3.98X
% of Whse Sales from Non-Stock Items	15.0%	7.3 - 27.2%
Cost of In-Stock Whse Sales/Ave Inventory	3.01X	2.15 - 3.38X
No. of Days Average Inventory Carried	109 Days	92 - 135 Days
Total Cost of Goods Sold to Ave Inventory	3.61X	3.09 - 4.71X
Whse Gross Margin Return on Ave Inventory	115%	103 - 153%
Turn & Earn Profitability Index	86%	70 - 99%
Percent of Firms on LIFO	69.8%	
ACCOUNTS RECEIVABLE		
Average Collection Period	42 Days	38 - 49 Days
Gross Margin Return on Receivables	212%	158 - 240%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	68.6%	62.2 - 77.9%
31-60 Days Outstanding	15.5%	11.0 - 20.2%
61-90 Days Outstanding	6.7%	4.3 - 8.8%
Over 90 Days Outstanding	9.2%	2.9 - 14.0%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$858	$526 - 1,276
31-60 Days Outstanding	$767	$377 - 1,626
61-90 Days Outstanding	$613	$343 - 1,596
Over 90 Days Outstanding	$980	$194 - 2,680
Total	$889	$561 - 1,128
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	70.1%	55.7 - 83.4%
31-60 Days Outstanding	16.1%	8.8 - 22.0%
61-90 Days Outstanding	7.1%	4.2 - 10.5%
Over 90 Days Outstanding	6.6%	2.9 - 9.6%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

CWA REGION

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.5%	70.8 - 78.1%
Gross Margin	25.5%	21.9 - 29.2%
Operating Expenses:		
Selling Expenses	7.7%	6.3 - 8.7%
Delivery Expenses	1.9%	1.4 - 2.2%
Warehouse Expenses	2.8%	1.8 - 3.7%
General & Administrative Expenses	9.4%	7.3 - 11.1%
Occupancy Expenses	1.9%	1.0 - 2.6%
Other Operating Expenses	0.4%	0.0 - 0.5%
Total Operating Expenses	24.0%	21.4 - 26.4%
Net Operating Profit	1.6%	0.2 - 2.9%
Non-Operating Income	2.1%	1.4 - 2.6%
Non-Operating Expenses	1.9%	1.1 - 2.7%
Net Profit Before Tax	1.7%	0.6 - 2.4%
Net Profit After Tax	1.5%	0.4 - 2.2%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	24.0%	21.4 - 26.4%
Total Operating Expense to Gross Margin	94.8%	89.9 - 99.1%
Non-People Expense to Net Sales	8.7%	7.0 - 9.6%
Non-People Expense to Gross Margin	33.5%	30.1 - 36.8%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.3 - 1.5%
Times Interest Earned	2.7X	1.8 - 8.1X
BALANCE SHEET		
Cash	4.3%	0.7 - 4.8%
Accounts & Notes Receivable, Trade(Net)	27.5%	22.6 - 32.4%
Inventory	52.0%	45.3 - 59.4%
Other Current Assets	1.3%	0.4 - 1.6%
Total Current Assets	85.0%	79.8 - 91.0%
All Other Assets	15.0%	9.0 - 20.2%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	33.7%	21.6 - 44.2%
Total Long-Term Liabilities	15.0%	0.0 - 21.4%
Total Liabilities	48.7%	30.2 - 65.6%
Total Net Worth	50.9%	34.4 - 68.4%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

SWA REGION

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	11.7%	7.4 - 18.6%
Total Assets to Net Worth	1.9X	1.6 - 3.0X
Net Profit After Tax to Total Assets	5.8%	3.9 - 8.0%
Net Sales to Total Assets	2.7X	2.1 - 3.2X
Net Profit After Tax to Net Sales	2.4%	1.4 - 2.9%
Net Profit Before Tax to Net Worth	18.8%	11.5 - 30.4%
Net Profit Before Tax to Total Assets	7.8%	6.0 - 13.6%
EBIT to Total Assets	10.3%	8.5 - 14.1%
SALES ANALYSIS		
Net Sales($000)	$4,786	$2,512 - 14,263
Percent Sales Change from Prior Year	10.6%	0.5 - 20.0%
Sales Mix:		
Direct Sales	13.4%	6.9 - 21.7%
Warehouse Sales - Counter and Delivery	86.6%	78.2 - 93.1%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	59.4%	33.0 - 90.0%
Heating & Cooling Supplies & Equipment	11.8%	0.0 - 14.5%
Industrial P-V-F (Pipes-Valves-Fittings)	18.1%	0.0 - 15.0%
Other Industrial Supplies & Equipment	1.8%	0.0 - 1.8%
Other Products	8.9%	0.0 - 14.1%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	23.7%	20.7 - 25.8%
Gross Margin on Direct Shipments	11.9%	8.1 - 16.0%
Gross Margin on Warehouse Sales	22.3%	21.5 - 25.2%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.00X	2.54 - 3.58X
Total Debt to Net Worth	90.8%	55.1 - 194.9%
Current Debt to Net Worth	57.3%	31.2 - 138.2%
Current Assets to Current Debt	2.79X	1.82 - 3.60X
Current Assets Minus Inventory/Curr Debt	1.13X	0.72 - 1.73X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	7.0	5.0 - 8.0
Average Invoice Size	$178	$131 - 271
Average Billing Line	$27.25	$18.61 - 40.85

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

SWA REGION

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$196,550	$156,061 - 235,407
Gross Margin Per Employee	$43,330	$39,266 - 47,789
Average Compensation Per Employee	$20,425	$18,392 - 24,398
Average Fringe Benefits Per Employee	$3,224	$2,398 - 4,416
Compensation & Fringes Per Employee	$23,671	$21,117 - 28,290
Payroll to Net Sales	10.5%	9.3 - 12.0%
Fringe Benefits to Net Sales	1.5%	1.3 - 2.2%
Payroll & Fringes to Net Sales	11.6%	10.4 - 13.6%
Payroll to Gross Margin	48.5%	43.3 - 52.8%
Fringe Benefits to Gross Margin	7.0%	5.4 - 9.2%
Payroll & Fringes to Gross Margin	54.2%	47.8 - 58.1%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.87X	3.02 - 4.79X
% of Whse Sales from Non-Stock Items	6.0%	1.6 - 14.3%
Cost of In-Stock Whse Sales/Ave Inventory	3.47X	2.71 - 4.21X
No. of Days Average Inventory Carried	94 Days	76 - 121 Days
Total Cost of Goods Sold to Ave Inventory	4.36X	2.97 - 5.58X
Whse Gross Margin Return on Ave Inventory	109%	94 - 145%
Turn & Earn Profitability Index	84%	74 - 110%
Percent of Firms on LIFO	48.5%	
ACCOUNTS RECEIVABLE		
Average Collection Period	45 Days	40 - 51 Days
Gross Margin Return on Receivables	174%	150 - 232%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.9%	61.3 - 76.0%
31-60 Days Outstanding	16.2%	13.2 - 19.5%
61-90 Days Outstanding	6.9%	3.4 - 9.5%
Over 90 Days Outstanding	10.1%	5.1 - 17.1%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,568	$483 - 2,504
31-60 Days Outstanding	$1,185	$587 - 2,139
61-90 Days Outstanding	$1,070	$338 - 1,740
Over 90 Days Outstanding	$1,485	$474 - 3,130
Total	$1,493	$625 - 2,037
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	67.6%	54.0 - 76.9%
31-60 Days Outstanding	16.8%	10.2 - 22.4%
61-90 Days Outstanding	7.2%	4.1 - 10.2%
Over 90 Days Outstanding	8.4%	3.6 - 14.2%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

SWA REGION

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.3%	74.2 - 79.3%
Gross Margin	23.7%	20.7 - 25.8%
Operating Expenses:		
Selling Expenses	6.0%	4.4 - 7.0%
Delivery Expenses	1.3%	0.9 - 1.7%
Warehouse Expenses	2.3%	1.6 - 2.9%
General & Administrative Expenses	8.1%	5.8 - 8.8%
Occupancy Expenses	2.0%	1.2 - 2.9%
Other Operating Expenses	0.7%	0.0 - 0.6%
Total Operating Expenses	20.4%	18.0 - 22.1%
Net Operating Profit	3.3%	2.4 - 4.6%
Non-Operating Income	1.7%	1.0 - 2.4%
Non-Operating Expenses	1.7%	1.1 - 2.2%
Net Profit Before Tax	3.3%	2.3 - 4.3%
Net Profit After Tax	2.4%	1.4 - 2.9%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	20.4%	18.0 - 22.1%
Total Operating Expense to Gross Margin	86.3%	82.0 - 89.7%
Non-People Expense to Net Sales	7.5%	5.7 - 8.5%
Non-People Expense to Gross Margin	32.3%	28.9 - 35.1%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.9%	0.5 - 1.5%
Times Interest Earned	3.6X	2.6 - 9.6X
BALANCE SHEET		
Cash	4.9%	1.4 - 5.3%
Accounts & Notes Receivable, Trade(Net)	29.0%	22.2 - 37.1%
Inventory	50.8%	44.6 - 57.4%
Other Current Assets	1.9%	0.1 - 1.7%
Total Current Assets	86.6%	80.7 - 94.0%
All Other Assets	13.4%	6.2 - 19.3%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	37.2%	21.4 - 51.2%
Total Long-Term Liabilities	12.4%	2.2 - 22.1%
Total Liabilities	49.7%	36.4 - 66.5%
Total Net Worth	50.3%	33.5 - 63.6%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

MAD REGION

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	10.9%	4.8 - 19.7%
Total Assets to Net Worth	1.9X	1.6 - 2.8X
Net Profit After Tax to Total Assets	6.2%	3.0 - 8.1%
Net Sales to Total Assets	2.7X	2.2 - 3.2X
Net Profit After Tax to Net Sales	2.0%	1.0 - 2.9%
Net Profit Before Tax to Net Worth	14.8%	6.3 - 26.7%
Net Profit Before Tax to Total Assets	7.5%	3.3 - 12.3%
EBIT to Total Assets	9.3%	7.9 - 16.1%
SALES ANALYSIS		
Net Sales($000)	$6,308	$2,773 - 11,796
Percent Sales Change from Prior Year	9.8%	6.6 - 18.4%
Sales Mix:		
Direct Sales	4.1%	0.0 - 5.9%
Warehouse Sales - Counter and Delivery	95.9%	94.1 - 100.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	58.8%	42.5 - 86.3%
Heating & Cooling Supplies & Equipment	11.5%	0.0 - 17.5%
Industrial P-V-F (Pipes-Valves-Fittings)	19.7%	0.0 - 19.0%
Other Industrial Supplies & Equipment	2.5%	0.0 - 3.5%
Other Products	7.5%	0.0 - 10.5%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.2%	23.5 - 27.4%
Gross Margin on Direct Shipments	12.1%	7.7 - 16.6%
Gross Margin on Warehouse Sales	27.3%	24.7 - 29.2%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.03X	2.64 - 3.59X
Total Debt to Net Worth	85.1%	60.1 - 182.4%
Current Debt to Net Worth	63.2%	44.7 - 143.3%
Current Assets to Current Debt	2.08X	1.63 - 2.88X
Current Assets Minus Inventory/Curr Debt	0.91X	0.69 - 1.43X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	7.0	5.0 - 10.0
Average Invoice Size	$190	$129 - 257
Average Billing Line	$29.13	$8.81 - 39.88

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

MAD REGION

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$201,526	$163,940 - 256,347
Gross Margin Per Employee	$52,824	$46,104 - 64,938
Average Compensation Per Employee	$26,953	$22,142 - 30,414
Average Fringe Benefits Per Employee	$5,054	$3,690 - 6,042
Compensation & Fringes Per Employee	$29,952	$25,565 - 36,447
Payroll to Net Sales	13.5%	11.9 - 14.1%
Fringe Benefits to Net Sales	2.3%	2.1 - 3.1%
Payroll & Fringes to Net Sales	14.6%	12.6 - 16.5%
Payroll to Gross Margin	50.2%	46.5 - 54.5%
Fringe Benefits to Gross Margin	9.0%	8.3 - 12.2%
Payroll & Fringes to Gross Margin	58.3%	43.6 - 63.9%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.96X	2.92 - 5.07X
% of Whse Sales from Non-Stock Items	6.0%	5.0 - 31.0%
Cost of In-Stock Whse Sales/Ave Inventory	2.74X	2.40 - 4.42X
No. of Days Average Inventory Carried	92 Days	72 - 125 Days
Total Cost of Goods Sold to Ave Inventory	4.21X	3.23 - 5.54X
Whse Gross Margin Return on Ave Inventory	133%	125 - 192%
Turn & Earn Profitability Index	99%	89 - 148%
Percent of Firms on LIFO	40.9%	
ACCOUNTS RECEIVABLE		
Average Collection Period	51 Days	43 - 55 Days
Gross Margin Return on Receivables	187%	154 - 224%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	65.9%	54.8 - 81.3%
31-60 Days Outstanding	18.4%	14.7 - 22.0%
61-90 Days Outstanding	7.7%	4.6 - 9.7%
Over 90 Days Outstanding	8.0%	1.4 - 13.6%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,335	$784 - 1,821
31-60 Days Outstanding	$1,296	$975 - 2,536
61-90 Days Outstanding	$1,579	$725 - 2,666
Over 90 Days Outstanding	$1,273	$564 - 2,500
Total	$1,439	$687 - 1,823
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	71.8%	59.1 - 81.7%
31-60 Days Outstanding	17.0%	13.5 - 22.5%
61-90 Days Outstanding	6.3%	2.6 - 9.8%
Over 90 Days Outstanding	4.8%	3.0 - 6.7%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

MAD REGION

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.8%	72.6 - 76.5%
Gross Margin	25.2%	23.5 - 27.4%
Operating Expenses:		
Selling Expenses	6.5%	4.2 - 9.2%
Delivery Expenses	2.4%	1.6 - 2.9%
Warehouse Expenses	2.7%	1.7 - 3.8%
General & Administrative Expenses	8.9%	7.0 - 9.4%
Occupancy Expenses	1.9%	1.2 - 2.8%
Other Operating Expenses	0.3%	0.0 - 0.3%
Total Operating Expenses	22.7%	21.1 - 24.5%
Net Operating Profit	2.5%	0.9 - 4.6%
Non-Operating Income	1.5%	0.7 - 2.2%
Non-Operating Expenses	1.6%	0.3 - 2.6%
Net Profit Before Tax	2.3%	-0.1 - 4.2%
Net Profit After Tax	2.0%	1.0 - 2.9%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.7%	21.1 - 24.5%
Total Operating Expense to Gross Margin	90.7%	83.6 - 96.4%
Non-People Expense to Net Sales	6.9%	5.6 - 8.7%
Non-People Expense to Gross Margin	27.4%	20.5 - 33.5%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.6%	0.4 - 1.5%
Times Interest Earned	5.3X	3.0 - 10.2X
BALANCE SHEET		
Cash	5.1%	0.1 - 9.2%
Accounts & Notes Receivable, Trade(Net)	32.9%	27.7 - 39.7%
Inventory	47.5%	42.3 - 52.6%
Other Current Assets	1.1%	0.1 - 1.6%
Total Current Assets	86.6%	80.9 - 91.2%
All Other Assets	13.4%	8.7 - 19.1%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	41.5%	27.7 - 52.3%
Total Long-Term Liabilities	7.3%	1.1 - 10.7%
Total Liabilities	48.9%	35.7 - 62.2%
Total Net Worth	51.1%	37.8 - 64.3%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: METRO CHICAGO & NORTHERN IL

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	14.1%	Insufficient Data
Total Assets to Net Worth	1.7X	Insufficient Data
Net Profit After Tax to Total Assets	7.5%	Insufficient Data
Net Sales to Total Assets	2.5X	Insufficient Data
Net Profit After Tax to Net Sales	2.7%	Insufficient Data
Net Profit Before Tax to Net Worth	20.1%	Insufficient Data
Net Profit Before Tax to Total Assets	10.9%	Insufficient Data
EBIT to Total Assets	13.3%	Insufficient Data
SALES ANALYSIS		
Net Sales($000)	$6,037	Insufficient Data
Percent Sales Change from Prior Year	10.3%	Insufficient Data
Sales Mix:		
Direct Sales	15.9%	Insufficient Data
Warehouse Sales - Counter and Delivery	84.1%	Insufficient Data
TOTAL SALES	100.0%	Insufficient Data
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	42.7%	Insufficient Data
Heating & Cooling Supplies & Equipment	12.3%	Insufficient Data
Industrial P-V-F (Pipes-Valves-Fittings)	43.8%	Insufficient Data
Other Industrial Supplies & Equipment	0.5%	Insufficient Data
Other Products	0.7%	Insufficient Data
TOTAL SALES	100.0%	Insufficient Data
GROSS MARGIN		
Gross Margin on Net Sales	35.2%	Insufficient Data
Gross Margin on Direct Shipments	10.6%	Insufficient Data
Gross Margin on Warehouse Sales	32.4%	Insufficient Data
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.70X	Insufficient Data
Total Debt to Net Worth	73.3%	Insufficient Data
Current Debt to Net Worth	59.6%	Insufficient Data
Current Assets to Current Debt	2.60X	Insufficient Data
Current Assets Minus Inventory/Curr Debt	1.29X	Insufficient Data
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	Insufficient Data
Average Invoice Size	$271	Insufficient Data
Average Billing Line	$47.06	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: METRO CHICAGO & NORTHERN IL

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$229,420	Insufficient Data
Gross Margin Per Employee	$60,778	Insufficient Data
Average Compensation Per Employee	$24,573	Insufficient Data
Average Fringe Benefits Per Employee	$5,401	Insufficient Data
Compensation & Fringes Per Employee	$29,565	Insufficient Data
Payroll to Net Sales	13.5%	Insufficient Data
Fringe Benefits to Net Sales	3.3%	Insufficient Data
Payroll & Fringes to Net Sales	16.8%	Insufficient Data
Payroll to Gross Margin	43.6%	Insufficient Data
Fringe Benefits to Gross Margin	8.9%	Insufficient Data
Payroll & Fringes to Gross Margin	54.1%	Insufficient Data
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.34X	Insufficient Data
% of Whse Sales from Non-Stock Items	10.0%	Insufficient Data
Cost of In-Stock Whse Sales/Ave Inventory	2.79X	Insufficient Data
No. of Days Average Inventory Carried	109 Days	Insufficient Data
Total Cost of Goods Sold to Ave Inventory	4.23X	Insufficient Data
Whse Gross Margin Return on Ave Inventory	160%	Insufficient Data
Turn & Earn Profitability Index	105%	Insufficient Data
Percent of Firms on LIFO	80.0%	
ACCOUNTS RECEIVABLE		
Average Collection Period	60 Days	Insufficient Data
Gross Margin Return on Receivables	158%	Insufficient Data
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.2%	Insufficient Data
31-60 Days Outstanding	18.8%	Insufficient Data
61-90 Days Outstanding	9.7%	Insufficient Data
Over 90 Days Outstanding	5.4%	Insufficient Data
Total	100.0%	Insufficient Data
Average Account Balance:		
Current (0-30 Days Outstanding)		Insufficient Data
31-60 Days Outstanding		Insufficient Data
61-90 Days Outstanding		Insufficient Data
Over 90 Days Outstanding		Insufficient Data
Total		Insufficient Data
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)		Insufficient Data
31-60 Days Outstanding		Insufficient Data
61-90 Days Outstanding		Insufficient Data
Over 90 Days Outstanding		Insufficient Data
Total		Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: METRO CHICAGO & NORTHERN IL

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	Insufficient Data
Cost of Goods Sold	64.8%	Insufficient Data
Gross Margin	35.2%	Insufficient Data
Operating Expenses:		
Selling Expenses	7.5%	Insufficient Data
Delivery Expenses	3.3%	Insufficient Data
Warehouse Expenses	4.1%	Insufficient Data
General & Administrative Expenses	11.2%	Insufficient Data
Occupancy Expenses	4.2%	Insufficient Data
Other Operating Expenses	0.0%	Insufficient Data
Total Operating Expenses	30.3%	Insufficient Data
Net Operating Profit	4.9%	Insufficient Data
Non-Operating Income	1.5%	Insufficient Data
Non-Operating Expenses	2.3%	Insufficient Data
Net Profit Before Tax	4.1%	Insufficient Data
Net Profit After Tax	2.7%	Insufficient Data
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	30.3%	Insufficient Data
Total Operating Expense to Gross Margin	86.6%	Insufficient Data
Non-People Expense to Net Sales	13.9%	Insufficient Data
Non-People Expense to Gross Margin	36.1%	Insufficient Data
INTEREST EXPENSE		
Interest Expense to Net Sales	0.6%	Insufficient Data
Times Interest Earned	7.5X	Insufficient Data
BALANCE SHEET		
Cash	7.9%	Insufficient Data
Accounts & Notes Receivable, Trade(Net)	36.7%	Insufficient Data
Inventory	47.1%	Insufficient Data
Other Current Assets	1.6%	Insufficient Data
Total Current Assets	93.2%	Insufficient Data
All Other Assets	6.8%	Insufficient Data
Total Assets	100.0%	Insufficient Data
Total Current Liabilities	38.9%	Insufficient Data
Total Long-Term Liabilities	11.3%	Insufficient Data
Total Liabilities	50.2%	Insufficient Data
Total Net Worth	49.8%	Insufficient Data
Total Liabilities & Net Worth	100.0%	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

MASA REGION

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	6.9%	2.0 - 13.3%
Total Assets to Net Worth	1.8X	1.4 - 2.7X
Net Profit After Tax to Total Assets	3.6%	1.3 - 5.4%
Net Sales to Total Assets	2.5X	2.0 - 2.8X
Net Profit After Tax to Net Sales	1.2%	0.4 - 2.3%
Net Profit Before Tax to Net Worth	9.4%	3.2 - 17.8%
Net Profit Before Tax to Total Assets	4.5%	1.9 - 7.1%
EBIT to Total Assets	6.8%	3.6 - 9.6%
SALES ANALYSIS		
Net Sales($000)	$6,952	$3,517 - 15,897
Percent Sales Change from Prior Year	6.7%	-2.5 - 14.3%
Sales Mix:		
Direct Sales	11.9%	5.6 - 16.6%
Warehouse Sales - Counter and Delivery	88.1%	83.4 - 94.4%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	51.4%	35.0 - 70.0%
Heating & Cooling Supplies & Equipment	15.6%	0.4 - 27.8%
Industrial P-V-F (Pipes-Valves-Fittings)	17.9%	0.0 - 25.8%
Other Industrial Supplies & Equipment	5.3%	0.0 - 3.1%
Other Products	9.9%	0.0 - 11.8%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	23.9%	21.6 - 25.5%
Gross Margin on Direct Shipments	13.0%	10.3 - 15.9%
Gross Margin on Warehouse Sales	24.0%	22.3 - 26.5%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.79X	2.43 - 3.37X
Total Debt to Net Worth	78.5%	41.5 - 170.8%
Current Debt to Net Worth	59.5%	37.9 - 136.2%
Current Assets to Current Debt	2.76X	1.67 - 3.52X
Current Assets Minus Inventory/Curr Debt	1.02X	0.70 - 1.67X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	3.6 - 6.0
Average Invoice Size	$169	$127 - 205
Average Billing Line	$34.85	$23.91 - 47.09

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

MASA REGION

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$189,818	$160,602 - 224,440
Gross Margin Per Employee	$44,578	$39,572 - 50,147
Average Compensation Per Employee	$23,053	$20,189 - 26,840
Average Fringe Benefits Per Employee	$3,791	$3,152 - 4,655
Compensation & Fringes Per Employee	$26,065	$22,786 - 30,769
Payroll to Net Sales	12.2%	10.6 - 14.1%
Fringe Benefits to Net Sales	1.9%	1.7 - 2.5%
Payroll & Fringes to Net Sales	13.6%	11.5 - 16.2%
Payroll to Gross Margin	52.0%	46.6 - 55.9%
Fringe Benefits to Gross Margin	8.5%	7.1 - 10.1%
Payroll & Fringes to Gross Margin	59.1%	51.8 - 64.4%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.35X	2.54 - 3.87X
% of Whse Sales from Non-Stock Items	8.2%	5.0 - 12.5%
Cost of In-Stock Whse Sales/Ave Inventory	2.82X	2.23 - 3.46X
No. of Days Average Inventory Carried	109 Days	94 - 144 Days
Total Cost of Goods Sold to Ave Inventory	3.59X	2.93 - 4.30X
Whse Gross Margin Return on Ave Inventory	106%	90 - 125%
Turn & Earn Profitability Index	85%	70 - 93%
Percent of Firms on LIFO	80.0%	
ACCOUNTS RECEIVABLE		
Average Collection Period	44 Days	38 - 58 Days
Gross Margin Return on Receivables	190%	147 - 210%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.9%	59.5 - 75.0%
31-60 Days Outstanding	16.2%	12.3 - 19.0%
61-90 Days Outstanding	8.0%	5.1 - 10.2%
Over 90 Days Outstanding	8.9%	4.3 - 11.7%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,276	$685 - 2,181
31-60 Days Outstanding	$1,659	$1,079 - 2,172
61-90 Days Outstanding	$1,483	$923 - 2,271
Over 90 Days Outstanding	$1,824	$915 - 2,300
Total	$1,215	$838 - 1,929
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	70.2%	62.5 - 77.9%
31-60 Days Outstanding	15.4%	9.8 - 21.0%
61-90 Days Outstanding	7.1%	4.6 - 9.0%
Over 90 Days Outstanding	7.3%	3.8 - 8.6%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

MASA REGION

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.1%	74.5 - 78.4%
Gross Margin	23.9%	21.6 - 25.5%
Operating Expenses:		
Selling Expenses	6.8%	5.4 - 7.6%
Delivery Expenses	1.6%	1.2 - 2.1%
Warehouse Expenses	3.4%	2.4 - 3.9%
General & Administrative Expenses	8.2%	6.1 - 10.2%
Occupancy Expenses	1.9%	1.3 - 2.6%
Other Operating Expenses	0.4%	0.0 - 0.2%
Total Operating Expenses	22.3%	20.0 - 24.3%
Net Operating Profit	1.6%	0.4 - 3.6%
Non-Operating Income	1.8%	1.0 - 2.4%
Non-Operating Expenses	1.9%	1.3 - 2.6%
Net Profit Before Tax	1.5%	0.9 - 3.0%
Net Profit After Tax	1.2%	0.4 - 2.3%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.3%	20.0 - 24.3%
Total Operating Expense to Gross Margin	94.1%	85.5 - 98.3%
Non-People Expense to Net Sales	7.6%	6.3 - 8.9%
Non-People Expense to Gross Margin	32.3%	25.6 - 37.4%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.2%	0.5 - 1.7%
Times Interest Earned	2.3X	1.3 - 3.6X
BALANCE SHEET		
Cash	4.1%	0.5 - 6.1%
Accounts & Notes Receivable, Trade(Net)	30.6%	25.0 - 35.6%
Inventory	50.8%	41.0 - 59.8%
Other Current Assets	1.3%	0.4 - 1.5%
Total Current Assets	86.7%	81.4 - 94.0%
All Other Assets	13.3%	6.0 - 18.6%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	36.6%	26.0 - 46.7%
Total Long-Term Liabilities	11.6%	2.2 - 18.5%
Total Liabilities	48.2%	29.3 - 62.7%
Total Net Worth	51.8%	37.3 - 70.7%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

WDA REGION

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	1.4%	-11.7 - 5.6%
Total Assets to Net Worth	1.8X	1.4 - 3.3X
Net Profit After Tax to Total Assets	0.9%	-5.5 - 3.3%
Net Sales to Total Assets	2.7X	2.1 - 2.9X
Net Profit After Tax to Net Sales	-0.6%	-2.3 - 1.6%
Net Profit Before Tax to Net Worth	2.1%	-18.0 - 7.1%
Net Profit Before Tax to Total Assets	1.2%	-7.9 - 4.1%
EBIT to Total Assets	3.4%	-2.9 - 6.5%
SALES ANALYSIS		
Net Sales($000)	$5,512	$2,107 - 10,535
Percent Sales Change from Prior Year	-5.2%	-15.2 - 2.8%
Sales Mix:		
Direct Sales	10.0%	1.2 - 13.5%
Warehouse Sales - Counter and Delivery	90.0%	86.5 - 98.8%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	66.0%	32.9 - 99.6%
Heating & Cooling Supplies & Equipment	7.3%	0.0 - 10.0%
Industrial P-V-F (Pipes-Valves-Fittings)	18.4%	0.0 - 17.5%
Other Industrial Supplies & Equipment	1.5%	0.0 - 1.5%
Other Products	6.8%	0.0 - 6.8%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.8%	20.9 - 27.5%
Gross Margin on Direct Shipments	10.0%	6.6 - 15.4%
Gross Margin on Warehouse Sales	24.1%	19.9 - 27.7%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.02X	2.68 - 3.31X
Total Debt to Net Worth	82.4%	40.5 - 227.3%
Current Debt to Net Worth	50.5%	28.2 - 156.2%
Current Assets to Current Debt	2.76X	1.69 - 4.84X
Current Assets Minus Inventory/Curr Debt	1.07X	0.64 - 2.02X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.5	4.6 - 7.0
Average Invoice Size	$196	$97 - 266
Average Billing Line	$32.24	$23.97 - 52.61

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

WDA REGION

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$169,641	$139,569 - 214,092
Gross Margin Per Employee	$37,963	$33,769 - 47,774
Average Compensation Per Employee	$21,228	$19,018 - 23,444
Average Fringe Benefits Per Employee	$3,139	$2,475 - 4,188
Compensation & Fringes Per Employee	$24,071	$19,710 - 26,743
Payroll to Net Sales	11.6%	10.3 - 15.7%
Fringe Benefits to Net Sales	1.9%	1.4 - 2.2%
Payroll & Fringes to Net Sales	12.8%	9.4 - 16.1%
Payroll to Gross Margin	53.4%	45.9 - 58.2%
Fringe Benefits to Gross Margin	7.8%	7.0 - 10.3%
Payroll & Fringes to Gross Margin	56.4%	49.3 - 66.0%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.63X	2.73 - 4.41X
% of Whse Sales from Non-Stock Items	7.4%	4.5 - 15.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.58X	2.53 - 4.22X
No. of Days Average Inventory Carried	100 Days	83 - 134 Days
Total Cost of Goods Sold to Ave Inventory	4.51X	3.36 - 5.07X
Whse Gross Margin Return on Ave Inventory	118%	90 - 141%
Turn & Earn Profitability Index	88%	63 - 105%
Percent of Firms on LIFO	47.1%	
ACCOUNTS RECEIVABLE		
Average Collection Period	45 Days	40 - 56 Days
Gross Margin Return on Receivables	192%	148 - 232%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.9%	55.8 - 80.6%
31-60 Days Outstanding	16.2%	11.3 - 19.7%
61-90 Days Outstanding	5.7%	1.5 - 9.6%
Over 90 Days Outstanding	11.2%	1.8 - 18.2%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$930	$577 - 2,111
31-60 Days Outstanding	$1,038	$532 - 1,933
61-90 Days Outstanding	$490	$361 - 1,680
Over 90 Days Outstanding	$1,050	$469 - 2,526
Total	$1,069	$560 - 2,085
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	68.3%	54.1 - 81.9%
31-60 Days Outstanding	18.0%	9.8 - 23.7%
61-90 Days Outstanding	6.8%	2.9 - 9.8%
Over 90 Days Outstanding	6.9%	2.2 - 11.0%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

WDA REGION

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.2%	72.5 - 79.1%
Gross Margin	24.8%	20.9 - 27.5%
Operating Expenses:		
Selling Expenses	7.1%	4.9 - 8.9%
Delivery Expenses	2.4%	1.3 - 3.5%
Warehouse Expenses	2.9%	1.9 - 3.6%
General & Administrative Expenses	10.4%	7.7 - 13.1%
Occupancy Expenses	2.3%	1.1 - 3.5%
Other Operating Expenses	0.2%	0.0 - 0.3%
Total Operating Expenses	25.3%	20.2 - 29.6%
Net Operating Profit	-0.5%	-2.2 - 1.4%
Non-Operating Income	1.7%	0.6 - 3.0%
Non-Operating Expenses	1.9%	0.1 - 2.4%
Net Profit Before Tax	-0.6%	-2.9 - 1.9%
Net Profit After Tax	-0.6%	-2.3 - 1.6%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	25.3%	20.2 - 29.6%
Total Operating Expense to Gross Margin	101.7%	94.8 - 109.5%
Non-People Expense to Net Sales	9.9%	6.8 - 12.0%
Non-People Expense to Gross Margin	39.9%	30.8 - 46.6%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.1%	0.4 - 1.7%
Times Interest Earned	1.3X	-0.6 - 4.1X
BALANCE SHEET		
Cash	6.1%	1.1 - 6.9%
Accounts & Notes Receivable, Trade(Net)	27.1%	21.9 - 33.0%
Inventory	48.2%	35.9 - 58.8%
Other Current Assets	2.0%	0.2 - 2.9%
Total Current Assets	83.5%	75.7 - 93.7%
All Other Assets	16.5%	6.3 - 24.3%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	33.8%	14.8 - 48.5%
Total Long-Term Liabilities	13.9%	0.0 - 27.7%
Total Liabilities	47.7%	28.6 - 69.6%
Total Net Worth	52.3%	30.4 - 71.4%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

WSA REGION

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	5.4%	-6.6 - 10.6%
Total Assets to Net Worth	1.9X	1.5 - 2.6X
Net Profit After Tax to Total Assets	3.4%	-2.2 - 4.8%
Net Sales to Total Assets	2.6X	2.3 - 3.1X
Net Profit After Tax to Net Sales	1.0%	-0.8 - 2.1%
Net Profit Before Tax to Net Worth	8.8%	-2.0 - 15.0%
Net Profit Before Tax to Total Assets	5.1%	-0.6 - 8.1%
EBIT to Total Assets	6.8%	2.6 - 9.3%
SALES ANALYSIS		
Net Sales($000)	$6,239	$3,759 - 26,823
Percent Sales Change from Prior Year	0.2%	-6.6 - 14.0%
Sales Mix:		
Direct Sales	10.8%	5.0 - 15.4%
Warehouse Sales - Counter and Delivery	89.2%	84.6 - 95.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	50.8%	21.5 - 74.5%
Heating & Cooling Supplies & Equipment	11.4%	0.5 - 14.8%
Industrial P-V-F (Pipes-Valves-Fittings)	16.8%	0.0 - 28.8%
Other Industrial Supplies & Equipment	1.6%	0.0 - 4.0%
Other Products	19.4%	0.0 - 29.8%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	23.6%	19.7 - 27.6%
Gross Margin on Direct Shipments	11.3%	6.1 - 13.3%
Gross Margin on Warehouse Sales	26.0%	23.4 - 30.0%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.87X	2.61 - 3.39X
Total Debt to Net Worth	88.7%	52.5 - 155.9%
Current Debt to Net Worth	66.6%	28.2 - 133.3%
Current Assets to Current Debt	2.48X	1.75 - 4.34X
Current Assets Minus Inventory/Curr Debt	1.13X	0.70 - 1.54X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	5.0 - 7.3
Average Invoice Size	$231	$175 - 267
Average Billing Line	$31.63	$25.92 - 52.53

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

WSA REGION

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$223,251	$189,009 - 279,471
Gross Margin Per Employee	$55,569	$46,683 - 62,065
Average Compensation Per Employee	$26,699	$24,259 - 30,422
Average Fringe Benefits Per Employee	$5,511	$4,004 - 7,868
Compensation & Fringes Per Employee	$30,084	$26,495 - 36,950
Payroll to Net Sales	11.2%	8.9 - 14.7%
Fringe Benefits to Net Sales	2.5%	1.8 - 3.4%
Payroll & Fringes to Net Sales	13.6%	10.1 - 18.8%
Payroll to Gross Margin	48.4%	41.9 - 54.1%
Fringe Benefits to Gross Margin	10.6%	8.5 - 12.7%
Payroll & Fringes to Gross Margin	59.4%	49.1 - 65.9%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.59X	2.74 - 4.99X
% of Whse Sales from Non-Stock Items	5.0%	3.0 - 11.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.15X	2.68 - 4.87X
No. of Days Average Inventory Carried	102 Days	73 - 133 Days
Total Cost of Goods Sold to Ave Inventory	3.82X	3.52 - 5.73X
Whse Gross Margin Return on Ave Inventory	122%	94 - 163%
Turn & Earn Profitability Index	93%	69 - 132%
Percent of Firms on LIFO	55.0%	
ACCOUNTS RECEIVABLE		
Average Collection Period	48 Days	42 - 54 Days
Gross Margin Return on Receivables	182%	150 - 212%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	62.3%	52.4 - 76.4%
31-60 Days Outstanding	18.8%	14.0 - 23.3%
61-90 Days Outstanding	7.1%	4.5 - 9.2%
Over 90 Days Outstanding	11.8%	5.9 - 18.5%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,100	$720 - 2,471
31-60 Days Outstanding	$1,263	$737 - 2,798
61-90 Days Outstanding	$763	$539 - 2,283
Over 90 Days Outstanding	$1,848	$782 - 2,071
Total	$1,189	$909 - 2,230
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	66.8%	55.6 - 73.9%
31-60 Days Outstanding	17.0%	14.6 - 21.4%
61-90 Days Outstanding	8.1%	6.5 - 10.9%
Over 90 Days Outstanding	8.1%	3.7 - 12.0%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

WSA REGION

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.4%	72.4 - 80.3%
Gross Margin	23.6%	19.7 - 27.6%
Operating Expenses:		
Selling Expenses	7.0%	4.3 - 8.4%
Delivery Expenses	1.4%	0.6 - 1.9%
Warehouse Expenses	2.8%	2.0 - 3.6%
General & Administrative Expenses	9.4%	7.7 - 10.6%
Occupancy Expenses	1.6%	0.4 - 2.8%
Other Operating Expenses	0.4%	0.0 - 0.4%
Total Operating Expenses	22.6%	18.3 - 27.0%
Net Operating Profit	1.0%	-0.5 - 2.6%
Non-Operating Income	1.6%	0.8 - 2.3%
Non-Operating Expenses	1.6%	0.7 - 2.3%
Net Profit Before Tax	1.0%	-0.8 - 2.9%
Net Profit After Tax	1.0%	-0.8 - 2.1%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.6%	18.3 - 27.0%
Total Operating Expense to Gross Margin	96.1%	89.1 - 101.7%
Non-People Expense to Net Sales	8.1%	6.6 - 9.3%
Non-People Expense to Gross Margin	33.2%	29.2 - 36.7%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.1 - 1.4%
Times Interest Earned	4.5X	0.9 - 14.6X
BALANCE SHEET		
Cash	4.1%	0.3 - 6.8%
Accounts & Notes Receivable, Trade(Net)	33.4%	25.9 - 36.7%
Inventory	49.7%	44.2 - 60.9%
Other Current Assets	2.0%	0.3 - 2.5%
Total Current Assets	89.2%	84.0 - 95.6%
All Other Assets	10.8%	4.4 - 16.0%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	39.5%	22.0 - 49.0%
Total Long-Term Liabilities	9.7%	0.6 - 17.1%
Total Liabilities	49.2%	35.2 - 62.0%
Total Net Worth	50.8%	38.0 - 64.8%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PSDA REGION

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	9.2%	2.5 - 24.2%
Total Assets to Net Worth	4.6X	2.4 - 7.9X
Net Profit After Tax to Total Assets	3.7%	1.3 - 5.9%
Net Sales to Total Assets	3.0X	2.5 - 3.4X
Net Profit After Tax to Net Sales	-0.2%	-0.5 - 1.8%
Net Profit Before Tax to Net Worth	17.3%	9.1 - 36.0%
Net Profit Before Tax to Total Assets	4.3%	2.0 - 6.8%
EBIT to Total Assets	7.8%	5.1 - 9.9%
SALES ANALYSIS		
Net Sales($000)	$7,374	$3,863 - 26,585
Percent Sales Change from Prior Year	12.2%	0.5 - 24.2%
Sales Mix:		
Direct Sales	12.3%	6.5 - 13.9%
Warehouse Sales - Counter and Delivery	87.7%	86.1 - 93.5%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	65.1%	49.0 - 88.5%
Heating & Cooling Supplies & Equipment	4.2%	0.0 - 7.0%
Industrial P-V-F (Pipes-Valves-Fittings)	21.8%	0.0 - 21.3%
Other Industrial Supplies & Equipment	2.7%	0.0 - 0.7%
Other Products	6.2%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	22.4%	20.0 - 24.7%
Gross Margin on Direct Shipments	9.4%	6.1 - 13.5%
Gross Margin on Warehouse Sales	21.5%	17.0 - 22.4%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.22X	2.82 - 3.62X
Total Debt to Net Worth	285.9%	121.6 - 547.1%
Current Debt to Net Worth	214.1%	76.3 - 438.6%
Current Assets to Current Debt	1.57X	1.31 - 2.50X
Current Assets Minus Inventory/Curr Debt	0.75X	0.59 - 1.33X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	4.5 - 7.7
Average Invoice Size	$246	$119 - 384
Average Billing Line	$41.37	$19.81 - 71.09

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PSDA REGION

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$230,977	$170,416 - 363,737
Gross Margin Per Employee	$53,424	$45,762 - 64,961
Average Compensation Per Employee	$25,102	$23,026 - 27,830
Average Fringe Benefits Per Employee	$4,308	$3,298 - 6,175
Compensation & Fringes Per Employee	$28,763	$26,514 - 33,834
Payroll to Net Sales	9.6%	7.5 - 12.9%
Fringe Benefits to Net Sales	1.6%	1.3 - 1.9%
Payroll & Fringes to Net Sales	10.5%	2.5 - 14.3%
Payroll to Gross Margin	48.4%	42.6 - 52.4%
Fringe Benefits to Gross Margin	7.3%	5.8 - 9.5%
Payroll & Fringes to Gross Margin	53.7%	23.6 - 59.7%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.94X	3.42 - 6.73X
% of Whse Sales from Non-Stock Items	11.0%	6.3 - 27.5%
Cost of In-Stock Whse Sales/Ave Inventory	3.91X	Insufficient Data
No. of Days Average Inventory Carried	74 Days	55 - 110 Days
Total Cost of Goods Sold to Ave Inventory	5.76X	4.19 - 8.37X
Whse Gross Margin Return on Ave Inventory	138%	115 - 230%
Turn & Earn Profitability Index	108%	95 - 157%
Percent of Firms on LIFO	36.4%	
ACCOUNTS RECEIVABLE		
Average Collection Period	55 Days	45 - 74 Days
Gross Margin Return on Receivables	139%	107 - 207%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	72.1%	58.7 - 84.8%
31-60 Days Outstanding	14.0%	5.7 - 19.3%
61-90 Days Outstanding	6.2%	2.1 - 9.0%
Over 90 Days Outstanding	7.8%	3.0 - 12.0%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$2,248	$1,075 - 4,455
31-60 Days Outstanding	$1,641	$1,058 - 5,011
61-90 Days Outstanding	$1,884	$697 - 4,100
Over 90 Days Outstanding	$2,176	$857 - 2,894
Total	$2,506	$1,388 - 5,169
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	74.4%	60.7 - 82.1%
31-60 Days Outstanding	13.6%	7.3 - 20.8%
61-90 Days Outstanding	5.1%	2.5 - 8.4%
Over 90 Days Outstanding	6.9%	3.9 - 8.5%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1987 ANNUAL OPERATING PERFORMANCE SURVEY

PSDA REGION

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	77.6%	75.3 - 80.0%
Gross Margin	22.4%	20.0 - 24.7%
Operating Expenses:		
Selling Expenses	4.6%	2.4 - 6.0%
Delivery Expenses	1.2%	0.4 - 1.9%
Warehouse Expenses	3.8%	2.0 - 5.3%
General & Administrative Expenses	9.6%	5.4 - 13.1%
Occupancy Expenses	1.8%	1.0 - 2.8%
Other Operating Expenses	1.2%	0.0 - 2.2%
Total Operating Expenses	22.2%	17.7 - 26.9%
Net Operating Profit	0.3%	0.9 - 3.0%
Non-Operating Income	1.3%	0.3 - 2.1%
Non-Operating Expenses	1.8%	0.8 - 2.7%
Net Profit Before Tax	-0.2%	0.7 - 1.9%
Net Profit After Tax	-0.2%	-0.5 - 1.8%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.2%	17.7 - 26.9%
Total Operating Expense to Gross Margin	101.2%	87.0 - 96.4%
Non-People Expense to Net Sales	7.7%	6.1 - 10.2%
Non-People Expense to Gross Margin	34.2%	28.4 - 38.4%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.1%	0.3 - 1.4%
Times Interest Earned	2.3X	1.6 - 2.6X
BALANCE SHEET		
Cash	4.3%	0.6 - 2.4%
Accounts & Notes Receivable, Trade(Net)	40.5%	32.8 - 48.0%
Inventory	44.7%	32.8 - 53.6%
Other Current Assets	2.0%	0.1 - 2.3%
Total Current Assets	91.6%	89.3 - 95.9%
All Other Assets	8.4%	4.1 - 10.7%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	55.6%	34.5 - 72.3%
Total Long-Term Liabilities	18.8%	1.5 - 36.4%
Total Liabilities	74.4%	56.1 - 89.4%
Total Net Worth	25.6%	10.6 - 43.9%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

APPENDIX

Survey Methodology/Demographics

In late February, 1987, the American Supply Association mailed strictly confidential questionnaires to all P-H-C-P wholesale members. The primary intent of this survey was to collect detailed financial and operating information from member firms by specific geographic region, sales volume size and type of product emphasis.

Once the questionnaires were received by Industry Insights, all company identification, if any, was removed and a confidential company identification code was assigned. The data was then coded, keyed into the computer and edited by Industry Insights financial analysts for accuracy and consistency. Computer processing was performed on all data to insure statistical validity and to produce the financial and operating ratios contained in this study.

In all, 310 completed and usable questionnaires were received by Industry Insights representing approximately 1,000 different wholesaler locations (including headquarters). In particular, the statistical sample consists of the following:

	Number of Reporting Firms
All Reporting Firms	310
By Product Emphasis	
Plumbing Supplies & Equipment Firms (those that obtain more than 50% of sales from plumbing products)	162
Industrial Pipe, Valves and Fittings Firms (those with more than 50% of sales from Industrial P-V-P)	39
Plumbing Supplies & Equipment and Industrial Pipe, Valves and Fittings Firms (those with more than 50% of sales from plumbing and Industrial P-V-F products combined but less than 50% in each category alone)	39
HVAC and Other Emphasis Firms (those companies that cannot be classified in any of the three above groups; or, those firms with less than 50% of sales in combined plumbing supplies and equipment, and Industrial P-V-F products)	70
By Product Emphasis and Sales Volume Size	
Plumbing Supplies & Equipment Firms:	
Sales Under $3,000,000	42
Sales $3,000,000 to $7,000,000	55
Sales $7,000,000 to $12,000,000	24
Sales Over $12,000,000	41
Industrial Pipe, Valves and Fittings Firms:	
Sales Under $4,000,000	10
Sales $4,000,000 to $12,000,000	14
Sales Over $12,000,000	15

By Product Emphasis & Sales Volume Size (cont'd)

	Number of Reporting Firms
Plumbing Supplies & Equipment and Industrial Pipe, Valves and Fittings Firms:	
Sales Under $3,000,000	7
Sales $3,000,000 to $7,000,000	12
Sales Over $7,000,000	20
HVAC & Other Emphasis Firms:	
Sales Under $3,000,000	18
Sales $3,000,000 to $8,000,000	26
Sales Over $8,000,000	24
Sales Volume Not Specified	2
By Regional Association Affiliation:	
PHWNE (CT, ME, MA, NH, RI, VT)	23
NYSPHW (NY, excluding NY City)	17
JCA (Long Island and Metro NY)	1
MAWA (DE, E. PA, MD, NJ, Wa. DC)	33
CWA (IN, OH, W. PA, WV)	46
SWA (AL, FL, GA, KY, MS, NC, SC, TN, VA)	35
MAD (Michigan, excluding Upper MI)	23
Metro Chicago, Northern IL	5
MASA (IA, KS, MN, MO, NE, ND, SD, UPPER MI, WI, Southern IL)	48
WDA (LA, TX, NM, OK, AR, CO)	41
WSA (ID, MT, WY, AK, OR, WA, HI, Northern CA, Northern Nevada)	22
PSDA (AZ, Southern CA, Southern NV, UT)	14
Region not Specified	2

The statistical information contained in this report is believed to be representative of the companies responding to the survey. All reasonable efforts were taken by Industry Insights, Inc. to assure data comparability within the limitations of accounting reporting procedures. However, the data used in this report are not necessarily based on audited financial statements and the statistical validity of any given number varies depending upon sample sizes and the amount of consistency among responses for that particular ratio. Industry Insights, therefore, makes no representations or warranties with respect to the results of this study and shall not be liable to clients or anyone else for any information inaccuracies, or errors or omissions in content, regardless of the cause of such inaccuracy, error or omission. In no event shall Industry Insights be liable for any consequential damages.

For those individuals interested in receiving more information relating to this report, contact:

Industry Insights, Inc.
1585 Bethel Road
Columbus, OH 43220
(614) 442-6626

Fiscal Year-Ends

Among the participants in each year's Operating Performance Report it is somewhat interesting to take note of the pattern of fiscal year-end dates. The table below shows that of the firms responding to the 1987 ASA survey, over half (56.4 percent) reported that their fiscal year follows the calendar year. Among the other 43.6 percent of firms responding to the survey, fiscal year ending dates were fairly evenly distributed throughout the year.

Month of Fiscal Year-Ends

Month	Percentage of Companies
January	6.2
February	7.8
March	7.5
April	2.6
May	1.6
June	2.3
July	0.6
August	2.0
September	4.2
October	4.6
November	3.6
December	56.4
Not Reported	0.6
TOTAL	100.0

Ratio Definitions and Sample Calculations

A primary purpose of the ASA Operating Performance Report of the P-H-C-P Wholesaler/Distributor and P-V-F Distributing industries is to provide a basis for comparing your own firm's performance with industry comparatives. In order to do this, it is necessary to calculate your firm's individual company ratios using the same methods that were used to compute the ratios in this report. These definitions appear on the pages which follow.

To further clarify the computational process, this section of the report also contains a completed survey form and sample calculations for a purely hypothetical company.

Note: Those firms that participated in the ASA survey received, absolutely free, a confidential Company Performance Report. This report presents a company's own ratios and data already computed in a manner consistent with those appearing in the industry report, and displayed alongside the appropriate industry comparatives. As a result, participating companies received invaluable information about their own business performance without having to spend time and effort to make the calculations manually.

Ratio Definitions and Sample Calculations

Performance Measure	Method of Computation () Indicates Survey Line #	Computational Example: Sample Co.	Suggested Uses
Overall Performance			
• Net Profit After Tax to Net Worth (%)	(16) Net Profit After Tax ÷ (27) Net Worth	$69,815 ÷ 1,072,599 = 6.5%	Overall financial performance from the owner's standpoint.
• Total Assets to Net Worth (X)	(23) Total Assets ÷ (27) Net Worth	$2,369,891 ÷ 1,072,599 = 2.2x	Setting policies concerning amount of debt vs. equity in the business.
• Net Profit After Tax to Total Assets (%)	(16) Net Profit After Tax ÷ (23) Total Assets	$69,815 ÷ 2,369,891 = 2.9%	Overall financial performance from a management standpoint.
• Net Sales to Total Assets (X)	(1) Net Sales ÷ (23) Total Assets	$5,884,780 ÷ 2,369,891 = 2.5x	Asset management--productivity of total asset base.
• Net Profit After Tax to Net Sales (%)	(16) Net Profit After Tax ÷ (1) Net Sales	$69,815 ÷ 5,884,780 = 1.2%	Margin management (gross margin and expenses)
• Net Profit Before Tax to Total Assets (%)	(14) Net Profit Before Tax ÷ (23) Total Assets	$114,136 ÷ 2,369,891 = 4.8%	Overall financial performance from a management standpoint ignoring tax considerations.
• EBIT* to Total Assets (%)	[(14) Net Profit Before Tax + (48) Interest] ÷ (23) Total Assets	[$114,136 +13,092] ÷ 2,369,891 = 5.4%	Same as previous ratio but ignores interest expense (leverage, not operations related)
Sales Analysis			
• Percent Sales Change from prior year	[(1) Net Sales - (39) Previous Years Sales] ÷ (39) Previous Years Sales	[$5,884,780 - 6,002,478] ÷ 6,002,478 = (2.0)	Indication of company growth. Caution should be used due to inflationary distortions.
Asset and Financial Management			
• Current Asset Turn (X)	(1) Net Sales ÷ (21) Total Current Assets	$5,884,780 ÷ 2,258,150 = 2.6x	Asset management - productivity of current asset base.
• Total Debt to Net Worth (%)	(26) Total Liabilities ÷ (27) Net Worth	$1,297,292 ÷ 1,072,599 = 120.9%	Measures overall leverage. Use to set policy of how much debt is employed relative to owner's funds.
• Current Debt to Net Worth (%)	(24) Current Liabilities ÷ (27) Net Worth	$520,042 ÷ 1,072,599 = 48.5%	A measure of the financial mix of the firm.
• Current Assets to Current Debt (x)	(21) Total Current Assets ÷ (24) Total Current Liabilities	$2,258,150 ÷ 520,042 = 4.3X	Good overall measures of liquidity. Used to stay within guides set by suppliers and creditors.
• Current Assets Less Inventory to Current Debt (X)	[(21) Total Current Assets - (19) Inventory] ÷ (24) Total Current Liabilities	[$2,258,150 - 983,840] ÷ 520,042 = 2.5x	Same as above ratio.
Transaction Data			
• Billing Lines Per Invoice	(45) Annual Billing Lines ÷ (44) Total No. Invoices	171,872 ÷ 21,484 = 8	Gives some indication of invoicing efficiency.
• Average Invoice Size ($)	(1)Net Sales ÷ (44) Total No. Invoices	$5,884,780 X .83 ÷ 21,484 = $227.35	Indicates the typical size of an invoice and thus add-on purchase efficiency.
• Average Billing Line ($)	(1)Net Sales ÷ (45) Annual Billing Lines	$5,884,780 X .83 ÷ 171,872 = $28.42	Indicates the size of a typical item billed.
Personnel Productivity			
• Payroll to Net Sales (%)	(29) Total Payroll Expenses ÷ (1) Net Sales	$604,313 ÷ 5,884,780 = 10.3%	Overall indicator of payroll cost control. Inflation proof. Compare: overtime; vs. industry; by store.
• Fringe Benefits to Net Sales (%)	(30) Total Fringe & Payroll Taxes ÷ (1) Net Sales	$234,303 ÷ 5,884,780 = 4.0%	Indicates how much of sales are paid in fringe benefits. Compare: overtime; vs. industry.
• Payroll and Fringes to Net Sales (%)	[(29) Payroll Expense + (30) Fringe Benefits] ÷ (1) Net Sales	[$604,313 + 234,303] ÷ 5,884,780 = 14.3%	Indicator of all personnel related costs.

*EBIT refers to "Earnings Before Interest and Taxes."

Ratio Definitions and Sample Calculations

Performance Measure	Method of Computation () Indicates Survey Line #	Computational Example: Sample Co.	Suggested Uses
Personnel Productivity (cont)			
• Payroll to Gross Margin (%)	(29) Total Payroll Expense ÷ (3) Gross Profit on Sales	$604,313 ÷ 1,492,481 = 40.5%	Indicates the portion of gross profits that are used in payroll costs.
• Fringe Benefits to Gross Margin (%)	(30) Total Fringe Benefits ÷ (3) Gross Profit on Sales	$234,303 ÷ 1,492,481 = 15.7%	Same as above but relative to fringe benefits.
• Payroll and Fringes to Gross Margin (%)	[(29) Total Payroll + (30) Total Fringes] ÷ (3) Gross Profit on Sales	[$604,313 + 234,303] ÷ 1,492,481 = 56.2%	Indicator of all personnel related costs that are used in gross margin production.
Inventory Management			
• Cost of Whse Goods Sold to Average Inventory (x)	[(34) Total Whse Sales - (37) Whse Gross Profit] ÷ [((19) Inventory + (40) Previous Years Inventory) ÷ 2]	[$5,240,136 - 1,396,217] ÷ [(983,840 + 992,313) ÷ 2] = 3.9x	Measure of inventory productivity. Compare to industry, over time or product categories.
• No. of Days Average Inventory Carried	[((19) Inventory + (40) Previous Years Inventory) ÷ 2] ÷ [((34) Whse Sales-(37) Whse Gross Profit) ÷ 365]	[($983,840 + 992,313) ÷ 2] ÷ [(5,240,136-1,396,217) ÷ 365] = 94 days	Similar in value to above measure. Shows how quickly inventory is moving.
• Total Cost of Goods Sold to Average Inventory (x)	(2) Total Cost of Goods Sold ÷ [(19) Inventory + (40) Previous Years Inventory) ÷ 2]	$4,392,299 ÷ [(983,840 + 992,313) ÷ 2] = 4.4x	Shows how many times you were able to "turn over" your inventory.
• Whse Gross Margin Return on Average Inventory (%)	(37) Whse Gross Profit ÷ [((19) Inventory + (40) Previous Years Inventory) ÷ 2]	$1,396,217 ÷ [(983,840 + 992,313) ÷ 2] = 141.3%	Overall measure of inventory, profitability and productivity. Combines margin and turnover.
• Turn & Earn Profitability Index (%)	[((34) Whse Sales-(37) Whse Gross Profit) ÷ ((19) Inventory + (40) Previous Years Inventory) ÷ 2] X [((37) Whse Gross Profit ÷ (34) Whse Sales) X 100]	[($5,240,136 - 139,217) ÷ (983,840 + 992,313) ÷ 2] X [(1,396,217 ÷ 5,240,136) X 100] = 103.9	Another return-on-investment measure which combines margin and turnover.
Accounts Receivable			
• Average Collection Period	(18) Accounts & Notes Receivable (Net) ÷ [(1) Net Sales X (1.0 - (44) % Cash Sales) ÷ 365]	1,096,734 ÷ [5,884,780 X (1.0 - .17) ÷ 365] = 82 days	Measuring effectiveness of various collection policies. Compare to industry and over time.
• Gross Margin Return on Receivables (%)	[((3) Gross Profit ÷ (1) Net Sales) X 100] X [365 ÷ Average Collection Period]	[(1,492,481 ÷ 5,884,780) X 100] X [365 ÷ 82] = 112.9%	Indicator of how much gross margin dollars are being generated on your accounts receivables.
Operating Expense Control			
• Total Operating Expense to Net Sales (%)	(10) Total Operating Expense ÷ (1) Net Sales	$1,323,621 ÷ 5,884,780 = 22.5%	Conventional measure used for controlling total operating costs.
• Total Operating Expense to Gross Margin (%)	(10) Total Operating Expense ÷ (3) Gross Profit	$1,323,621 ÷ 1,492,481 = 88.7%	A somewhat more specific measure than the one above.
• Non-People Expense to Net Sales (%)	[(10) Total Operaging Expense - ((29) Payroll + (30) Fringes)] ÷ (1) Net Sales	[$1,323,621 - (604,313 + 234,303)] ÷ 5,884,780 = 8.2%	A measure for controlling all operating costs except personnel costs.
• Non-People Expense to Gross Margin (%)	[(10) Total Operating Expense - ((29) Payroll + (30) Fringes)] ÷ (3) Gross Profit	[$1,323,621 - (604,313 + 234,303)] ÷ 1,492,481 = 32.5	Same as above but somewhat finer.
Interest Expense			
• Interest Expense to Net Sales (%)	(46) Interest Expense ÷ (1) Net Sales	$13,092 ÷ 5,884,780 = 0.2%	An indicator of how much debt financing is costing the firm relative to sales.
• Times Interest Earned (X)	[(14) Net Profit Before Taxes + (46) Interest] ÷ (46) Interest	[$114,136 + 13,092] ÷ 13,092 = 9.7x	Indicates the ease in which your company can pay interest costs out of earnings.

AMERICAN SUPPLY ASSOCIATION
1987 ANNUAL OPERATING PERFORMANCE SURVEY
(Based on 1986 Financial Results)

INFORMATION AND INSTRUCTIONS FOR PARTICIPANTS

With your help, the 1987 ASA Operating Performance Survey (of 1986 financial information) promises to be the best ever, and the easiest in which to participate. For the first time ever, you have the option of filling out either the same comprehensive survey form that has been used in the past, or a shorter, less detailed portion of the form. By filling out as much of the information as you can on the form, you will be assured of receiving a detailed confidential analysis report of your business. However, if you are simply unable to fill out the entire form, you can still participate and receive a confidential analysis of your business by filling out as much information as possible on the form and by omitting the entire last page.

GENERAL SUGGESTIONS AND INSTRUCTIONS

To participate and receive free analytical information about your firm, please follow the following guidelines:

1. Determine whether you wish to fill out the entire form, or the shorter version of the form (i.e. with the last page of information excluded).

2. Enter figures from your completed fiscal year which ended nearest to December 31, 1986. Full year data is required. Financial data need not be audited.

3. Dollar amounts should be rounded to the nearest dollar. Eliminate "cents." Columns labeled "Code #" are for internal use only and should be ignored.

4. Please report on the basis of your total firm rather than for individual branches.

5. Refer to the accompanying "Description of Operating Expenses Categories" for help in filling out lines 4 through 10.

6. **IT IS NOT NECESSARY TO FILL OUT EVERY LINE IF YOU DO NOT HAVE IT.**

7. If you prefer, just fill in the information that you readily know and forward your "Income Statement and Balance Sheet" financials (or your most recent annual "Income Tax Form") for your latest available 12 month period along with a copy of the survey form.

8. Send your response in the enclosed postage-paid, self-addressed envelope to:

   Industry Insights, Inc., P. O. Box 155, Dublin, OH 43017-9990

9. **THE DEADLINE DATE FOR PARTICIPATING IS APRIL 15, 1987.**

10. If you have any questions, contact Industry Insights, Inc. at (614) 889-8284.

PARTICIPATE NOW AND RECEIVE INVALUABLE CONFIDENTIAL ANALYSIS INFORMATION ABOUT YOUR COMPANY. YOUR CONFIDENTIAL REPORT WILL BE IN YOUR HANDS BY THE END OF MAY.

CONFIDENTIAL

AMERICAN SUPPLY ASSOCIATION
1987 ANNUAL OPERATING PERFORMANCE SURVEY
(Based on 1986 Financial Results)

CODE NUMBER 500

CLASSIFICATION DATA

Ending 12 month period upon which data is based (1) 12/31/86 month/day/year

Number of locations (including headquarters) which are included in the data reflected on this Survey Form. (Do not submit separate forms for branches.) (2) 1

REGIONAL IDENTIFICATION: (Check (✓) only one of the boxes below:

		Territory	Regional Association Affiliate
	1)	☐ CT, ME, MA, NH, RI, VT	PHWNE
	2)	☐ NY (excluding NYC)	NYSPHW
	3)	☐ Long Island and Metro NY	JCA
	4)	☐ DE, E.PA, MD, NJ, Wa.DC	MAWA
	5)	☒ IN, OH, W.PA, WV	CWA
	6)	☐ AL, FL, GA, KY, MS, NC, SC, TN, VA	SWA
	7)	☐ Michigan (excluding upper MI)	MAD
(3)	8)	☐ Metro Chicago, Northern IL	
	9)	☐ IA, KS, MN, MO, NE, ND, SD, Upper MI, WI, Southern IL	MASA
	10)	☐ LA, TX, NM, OK, AR, CO	WDA
	11)	☐ Rocky Mountain (ID, MT, WY)	
		Pacific NW (AK, OR, WA) HI, N.CA, N.NV	WSA
	14)	☐ AZ, S.CA, S.NV, UT	PSDA

PRODUCT SALES MIX - Please indicate the percentage of your total company sales accounted for by each type of product (estimate if necessary)

(4)	30	Plumbing Supplies & Equipment, including Plumbing Pipe, Valves & Fittings
(5)	_____	Hydronic & Warm Air Heating & Air Conditioning Supplies & Equipment
(6)	30	Industrial P-V-F (Industrial Pipe, Valves & Fittings)
(7)	30	Other Industrial Supplies & Equipment
(8)	10	Other (Please specify: _____)
(9)	100%	TOTAL

Indicate below to whom any questions regarding this Form should be directed and to whom the final report should be sent. Industry Insights will detach this coupon upon receipt to assure confidentiality.

Name (Questions) _____ Phone ( ) _____

Name (Report) Sample Company

Company _____ CODE NUMBER 500

City, State, Zip _____

INCOME STATEMENT ITEMS

Line #		Code #	AMOUNT IN $ (omit cents)
1	Net Sales (include direct shipments. Deduct claims, returns & allowances but not cash discounts allowed on sales. Exclude sales Taxes.)	(10)	$ 5,884,780
2	Cost of Goods Sold (include inbound transportation costs. Subtract purchase claims, returns and allowances but not cash discounts on purchases) (FIFO basis)*.	(11)	$ 4,392,299
3	Gross Profit on Sales (Line 1 minus Line 2) (FIFO Basis)	(12)	$ 1,492,481
4	Selling Expenses (refer to definition sheet)	(13)	$ 280,652
5	Delivery Expenses (refer to definition sheet)	(14)	$ 177,206
6	Warehouse Expenses (refer to definition sheet)	(15)	$ 197,090
7	General & Administrative Expenses (refer to definition sheet)	(16)	$ 562,999
8	Occupancy Expenses (refer to definition sheet)	(17)	$ 74,396
9	Other Operating Expenses (refer to definition sheet)	(18)	$ 31,278
10	Total Operating Expenses (Sum of Lines 4 through 9)***	(19)	$ 1,323,621
11	Net Operating Profit (Line 3 minus Line 10) (FIFO)	(20)	$ 168,860
12	Non-Operating Income (include cash discounts on purchases, interest earned and other income items not directly related to the primary operations of the business)	(21)	$ 34,838
13	Non-Operating Expenses (include cash discounts allowed on sales, interest paid, losses on sales of fixed assets, and other non-operating expenses or losses not already included above)	(22)	$ 89,562
14	Net Profit Before Taxes (Line 11 plus Line 12 minus Line 13) (FIFO)	(23)	$ 114,136
15	Income Taxes (Federal, State & City)	(24)	$ 44,321
16	Net Profit After Income Taxes (Line 14 minus Line 15) (FIFO)	(25)	$ 69,815

BALANCE SHEET ITEMS

17	Cash (include savings accounts, CD's & other temporary investments)	(26)	$ 159,182
18	Accounts & Notes Receivable, Trade (Net)	(27)	$ 1,096,734
19	Inventory (FIFO Basis)	(28)	$ 983,840
20	Other Current Assets (Such as prepaid items, supplies, etc.)	(29)	$ 18,394
21	Total Current Assets (Sum of Lines 17 thru 20)	(30)	$ 2,258,150
22	All Other Assets (Any Assets not included above)	(31)	$ 111,740
23	Total Assets (Sum of Lines 21 and 22) (Equal to Line 28) (FIFO)	(32)	$ 2,369,891
24	Total Current Liabilities (Due in less than 1 year)	(33)	$ 520,042
25	Total Long-Term Liabilities (Due in more than 1 year)	(34)	$ 777,250
26	Total Liabilities (Sum of Lines 24 and 25)	(35)	$ 1,297,292
27	Total Net Worth (or Owner's Equity) (FIFO)**	(36)	$ 1,072,599
28	Total Liabilities & Net Worth (Sum of Lines 26 and 27) (Equal to Line 23)	(37)	$ 2,369,891

* If on LIFO, subtract your "Annual Additions to your LIFO reserves" from your cost of goods sold to obtain FIFO cost of goods sold.

** If on LIFO, add your total LIFO reserve to your book net worth to get your FIFO net worth.

*** If your are a Subchapter S Corporation or a partnership, allocate an appropriate management salary for Owner-Managers to the applicable operating expense category(s) and to total operating expense. This would be an amount similar to what would have to be paid to a non-equity owning manager or managers. Doing this will assure that your numbers will be comparable to corporations paying seperate management salaries

(OPTIONAL INFORMATION PAGE)

COMPENSATION DATA

LINE #		CODE #	AMOUNT IN DOLLARS (omit cents)
29	Total Payroll Expenses (Include salaries, bonuses and commissions paid to all employees, including owners; exclude fringe benefits and payroll taxes)	(38)	$ 604,313
30	Total of Fringe Benefit Payments and Payroll Taxes (Include Company pension and profit sharing payments plus FICA, Workman's Compensation, Unemployment, Group Insurance, etc., for all employees, including owners)	(39)	$ 234,303
31	Gross Income of the Highest Paid Employee, Including Owners (refer to the person's W-2 statement gross income - as from salaries, commissions and bonuses, but excluding fringe benefits and payroll taxes.)	(40)	$ 50,000
32	Gross Income (as above) of the Second Highest Paid Employee (Including Owners)	(41)	$ 45,000

WAREHOUSE AND DIRECT SALES DATA

33	Dollar Amount of Direct (Drop) Shipment Sales	(42)	$ 644,644
34	Dollar Amount of Warehouse Sales (Counter & Delivery)	(45)	$ 5,240,136
35	Total Sales (Sum of Lines 33 and 34) (Equal to Line 1)	(46)	$ 5,844,780
36	Dollar Amount of Gross Profit on Direct (Drop) Shipments	(47)	$ 96,264
37	Dollar Amount of Gross Profit on Warehouse Sales (Report on FIFO Basis)	(48)	$ 1,396,217
38	Total FIFO Gross Profit (Sum of Lines 36 and 37) (Equal to Line 3)	(49)	$ 1,492,481

ADDITIONAL DATA (VERY IMPORTANT)

39	Previous Year's Net Sales	(50)	$ 6,002,478
40	Previous Year's Ending Inventory (FIFO Basis)	(51)	$ 992,313
41	Average Number of Employees During 1986 (Include all management personnel and all other employees. Convert part-time employees into full-time equivalents depending upon how much they worked relative to full-time employees. For example, two half-time employees each working twelve months would be counted as one employee)	(52)	# 21
42	Percent of Total 1986 Sales that were made for Cash (estimate if necessary)	(53)	17 %
43	Were you on a LIFO Inventory valuation system during 1986?	(54)	Yes ☐ No ☒
44	Total Number of Customer Invoices During the Year	(55)	# 21,484
45	Annual # of Billing Lines on Customer Invoices (estimate if necessary)	(56)	# 171,872
46	Interest Paid in 1986 (also include this amount on Line 13)	(57)	$ 13,092
47	Percent of Warehouse Sales coming from Non-Stock Items (estimate if necessary)	(87)	8 %

DETAIL OF ACCOUNTS RECEIVABLE (YEAR END)

LINE #		CODE #	NUMBER OF ACCOUNTS	CODE #	AMOUNT IN DOLLARS (omit cents)
48	Current (0 - 30 Days Outstanding)	(58)	# 257	(64)	$ 571,339
49	31 - 60 Days Outstanding	(59)	# 47	(65)	$ 154,748
50	61 - 90 Days Outstanding	(60)	# 17	(66)	$ 189,310
51	Over 90 Days Outstanding	(61)	# 28	(67)	$ 181,337
52	Total Accounts Receivable (Sum of Lines 48 thru 51) (Equal to Line 18)	(63)	# 349	(69)	$ 1,096,734

AMERICAN SUPPLY ASSOCIATION

DESCRIPTION OF OPERATING EXPENSE CATEGORIES

Selling Expenses

Selling executive salaries, commissions and bonuses; outside and inside salespeople salaries, commissions and bonuses; other selling personnel (clerical, secretarial and order takers) salaries, bonuses and wages; selling personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare; officer's life insurance).

Selling related: supplies; stationery; printing; automobile expense; travel and entertainment; dues and membership; conventions and meetings; education and training; advertising; promotions; brochures; showrooms; merchandise shows; miscellaneous.

Delivery Expenses

Delivery supervisor(s) salaries and bonuses; other delivery personnel (clerical, secretarial, drivers) salaries, bonuses and wages; delivery personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare).

Delivery related: supplies; gas and oil; tires; other automotive supplies; towel and uniform services; trucks, automobiles and other equipment repairs and maintenance; insurance (automobiles and trucks); licenses; equipment rental; trucks, automobiles and other equipment depreciation; dues and memberships; education and training; travel and entertainment; delivery services (cartage, freight, express); miscellaneous.

Warehouse Expenses

Warehouse supervisor salaries and bonuses; other warehouse personnel (clerical, secretarial, laborers, and other) salaries, bonuses and wages; warehouse personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare).

Warehouse related: supplies; travel and uniform services; equipment repairs and maintenance; insurance (inventory); equipment rental and depreciation; education and training; travel and entertainment; miscellaneous.

General Administrative Expenses

Executive salaries and bonuses; supervisor salaries and bonuses; other salaries and bonuses (including buyers); general and administrative personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare; officer's life insurance).

General and administrative related expenses (including purchasing expenses); supplies; stationery and printing; travel and uniform services; telephone and telegraph; postage; automobiles and other equipment repairs, maintenance, and depreciation; insurance (property, automotive, etc.); license, equipment and automobile rental; furniture and fixtures depreciation; automobile expense; travel and entertainment; dues and memberships; conventions and meetings; education and training; employment advertising; collection expense; cash over or short; donations; accounting services; legal services; other services; directors fees; miscellaneous. Also include bad debts written off.

Occupancy Expenses

Facilities management supervisor salaries and bonuses; janitor and maintenance personnel wages; occupancy personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions, profit-sharing trust contributions; other employee welfare).

Janitor and maintenance supplies; building and building equipment repairs and maintenance; janitor services; building and building equipment insurance; real estate taxes; rent (if applicable); building equipment rental; utilities (power, light, water, heat); building and building equipment depreciations (if applicable); miscellaneous.

Other Operating Expenses

All operating expenses not specified above.

Training
Scholarship
Development

EDUCATION FOUNDATION

ASA Education Foundation
20 North Wacker Drive, Suite 2500
Chicago, Illinois 60606
312/236-8082